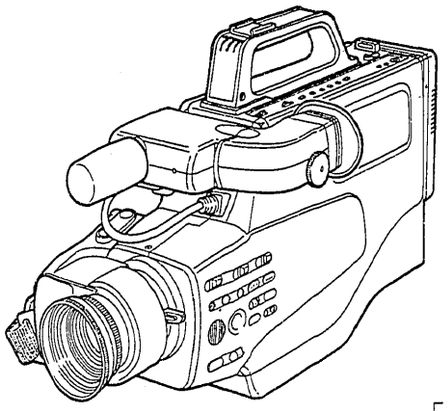
HITACHI

SERVICE MANUAL

TK | **No.3316E**

VM-1350A(U,C)

Technical Data



MANUALS RELATED TO THE VM-1350A

TITLE	MODEL	MANUAL No.
Technical Data	VM-2300A	No. 3282E
Technical Information	VM-2300A	No. 3283E
POWER ADAPTER/ CHARGER	VM-AC64A/ VM-AC65A	No. 3296E

VHS

This video deck is a VHS type video recorder. For proper operation, only the VHS type cassette must be used.

SPECIFICATIONS

■ General	
Power requirements	9.6V DC
Power consumption	9.6 watts (When "FOCUS AUTO/MAN" switch to "MAN".)
Dimensions	4-7/8"(W) x 9"(H) x 14-1/2"(D) 124(W) x 228(H) x 368(D) mm
Weight	4.9 lbs (2.2 kg)
Operating temperature	32°F ~ 104°F
Storage temperature	−4°F ~ 122°F
■ Video Recorder Section	
Format	VHS
Record system	Rotary two head Helical Scan Azimuth Recording
Video signal	EIA standard NTSC color
Tape speed	33.35 mm/sec.
Video output	1.0 Vp-p, 75 ohm
Audio output	−7.8 dBs (316 m Vrms), less than 1K ohm
Fast forward/rewind time	Less than 10 minutes with T-160 cassette
■ Camera Section	
Scanning	525 lines/60 fields/30 frames
Required minimum illumination	2 lux
Pickup device	1/2" C.C.D
Lens diameter	46 mm

SAFETY PRECAUTIONS

The following precautions should be observed when servicing.

1. Since many parts in the unit have special safety-related characteristics, always use genuine Hitachi replacement parts. Especially critical parts in the power circuit block should not be replaced with other makers'! Critical parts are marked with ⚠ in the schematic diagram.
2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascertain that it is completely safe to operate without danger of electrical shock.

X-RAY RADIATION

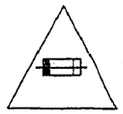
The primary source of X-ray radiation in this viewfinder is the picture tube. The tube used in this viewfinder is especially constructed to limit X-ray radiation emission. For continued X-ray radiation protection, the replacement tube must be the same type as the original, Hitachi approved one.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

VIDEO CAMERA / RECORDER

August 1989 TOKAI WORKS

CAUTION AGAINST FUSE REPLACEMENT



CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AMPERE, VOLT FUSE.
ATTENTION: AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE AMPERES VOLTS.

This symbol indicates Fast Operating Type Fuse.

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2. CIRCUIT BOARD/TAPE TRANSPORT MECHANISM REMOVAL

Note: Only the differences from the VM-2300A are described in "CIRCUIT BOARD/TAPE TRANSPORT MECHANISM" in this manual. Refer to the VM-2300A Technical Data (No. 3282E) when removing the components which are not referred to in this manual.

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MAIN MECHANICAL COMPONENTS IDENTIFICATIONS (TOP VIEW)
MAIN MECHANICAL COMPONENTS IDENTIFICATIONS (BOTTOM VIEW)

Note: The main mechanical components identifications are the same as those in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

3. MAIN MECHANICAL COMPONENTS REMOVAL

Note: The method to remove the main mechanical components is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

4. LENS BLOCK REMOVAL

Note: The method to remove the lens block is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

5. ELECTRONIC VIEWFINDER (EVF) REMOVAL

Note: The method to remove the electronic viewfinder (EVF) is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

6. TABLE OF FLAT PACKAGE ICs/SOLDERING IRON TIPS

Note: The table of flat package ICs/soldering iron tips is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

JIGS AND TAPES FOR ADJUSTMENT

Note: The jigs and tapes for adjustment are the same as those in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

CHAPTER 3 MECHANICAL ADJUSTMENT

Note: The mechanical adjustment is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

CHAPTER 4 ELECTRICAL ADJUSTMENT

Note: Only the differences from the VM-2300A are described in "ELECTRICAL ADJUSTMENT" in this manual. Refer to the VM-2300A Technical Data (No. 3282E) for the adjustment items which are not referred to in this manual.

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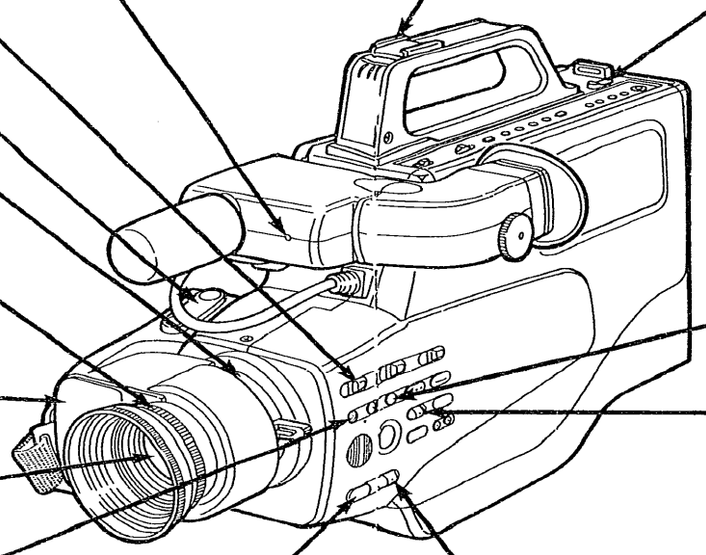


"SHUTTER" Speed Control Switch
Used to control the shutter speed during recording and/or record/pause (stand-by) mode. (See **"VARIABLE SHUTTER SPEED"** on page 26.)

Power Zoom Switch
This switch performs zooming electrically.
"W": Picture becomes wider gradually.
"T": Picture becomes telescopic gradually.

Zoom Ring (Manual Zooming)
The picture size can be magnified 6 times with the use of the zoom feature. Just rotate the zoom ring for a close up (T) or wide angle (W) picture. Macro close-up, as close as 1 cm from object, is feasible.

Focus Ring
Do not attempt to manually turn the focus ring when the camera/recorder is in the auto focus mode.

Auto Focus Window
To automatically focus the camera lens, this window transmits and receives infrared light which is reflected off the object. Make sure you don't obstruct this window when recording.

Lens
F1.4 (9 ~ 54 mm) 6:1 power zoom lens features auto focus and auto iris functions.

"DISPLAY" Button
Pressing this button once causes a 5 digit linear time counter and battery indicator to appear in the camera/recorders viewfinder. Pressing the button again will cause battery indicator and the amount of time remaining on the cassette in the camera/recorder.
Press a 3rd time to delete all displays.

Record Indicator
Flashes for about 10 seconds when the **"SELF TIMER"** switch is pressed during record/pause (stand-by) mode and stays on to indicate recording starts.

"PUSH AUTO" Focus Button
Auto focusing can be also performed during manual focus mode by pushing this button.

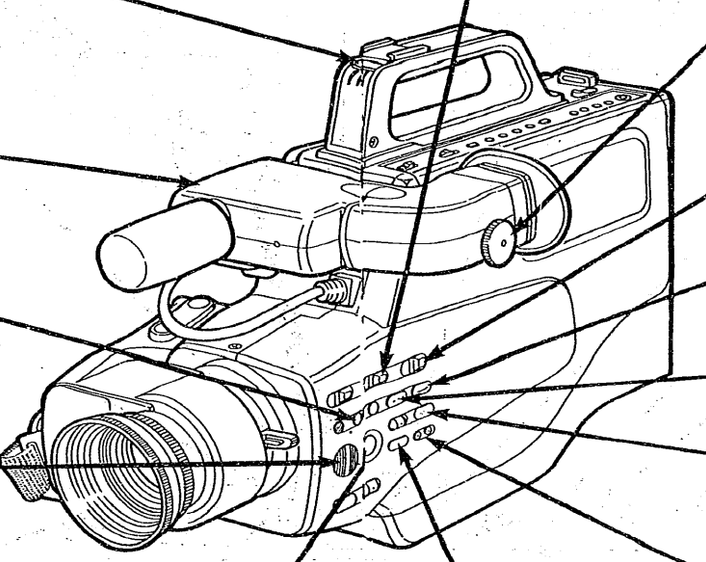
Accessory Shoe
Used to attach the DC camera light (Optional Accessory).

"FOCUS AUTO/MAN" Switch
Set this switch to the **"AUTO"** position for automatic focusing, and to the **"MAN"** position for focusing with the focus ring.

"BATTERY" Release Lever
Releases the battery or AC adaptor/charger attached to the video camera/recorder.

"MEMORY" Button
If this button is pressed while the linear time counter or time remaining read-out is displayed in the viewfinder, "M" appears in the display and it memorizes the tape position of "0:00:00".
(See page 27.)

"NEGA/POSI" Switch
- Normally set to "POSI".
- Set to "NEGA" for special effects as in a negative film.



Cover for DC camera Light Terminal
When the DC camera light is attached to the accessory shoe, this cover slides and power can be supplied to the DC camera light.
Caution: To help avoid any potential hazard from electric shock, do not open this cover when the DC camera light is not attached and the camera/recorder is turned on.

Electronic Viewfinder (EVF)
Displays what the camera/recorder lens sees. The electronic viewfinder also functions as a convenient black-and-white monitor during playback of recorded material.

"RESET/T-160" Button
When the linear time counter is displayed in the viewfinder, pressing this button resets the counter to "0:00:00".
When the time-remaining read-out is displayed, pressing this button changes the display for extended length T-160 tapes, the indicator under the **"RESET/T-160"** button will light.

"IRIS" Control
With this control in the center click position, the camera/recorder automatically adjusts the lens opening for the best picture in normal conditions.
The auto iris system can also be adjusted to compensate for unusual lighting. When the subject is in bright light and the background is dark, turn this control counterclockwise to close the lens iris opening. When the background is in bright light and the subject appears too dark, turn the control clockwise to open the lens iris.

"FADE" Button
During recording you can add a professional touch to your recordings by fading in and out of scenes.
NOTE: When you use to **"FADE"** button to fade in and out, the sound will also fade in and out with the picture.

"TIME LAPSE" Switch
This switch allows interval and one shot recording. See page 29.

"DATE/TIME" Button
Press this button to display the date and clock in the viewfinder.
Whenever the date and clock appear in the viewfinder, they will be recorded on the tape.

Diopter Control
To use the electronic viewfinder without eyeglasses on, turn this control knob for your optimum focus adjustment.

"SELF TIMER" Switch
This switch allows you to start recording after about 10 seconds when the switch is pressed.
(See **"SELF TIMER"** on page 28.)

"TITLE" Button
Press this button to create and record personalized titles on your videos with the camera/recorder's built-in titler.
(See **"TITLE RECORDING"** on page 32.)

"REVIEW" Button
Used to review the last few seconds of the recorded segment in the record/pause mode.

"INDEX" Button
When this button is pressed during a recording, the camera/recorder records an invisible index mark on the tape.
This is useful later when the tape is played back in your camera/recorder or a VCR that features the indexing system called **"VHS Index Search System"** because you will be able to quickly locate each index mark.

"DATE & CLOCK" Set Buttons
These buttons are used to set the clock (time and date) in your camera/recorder so it can be recorded on your tapes for future reference.
(See page 22.)

"VCR/CAM" Select Switch
This switch changes the camera/recorder to the record mode or to the playback mode. The switch must be in "CAM" position for recording.

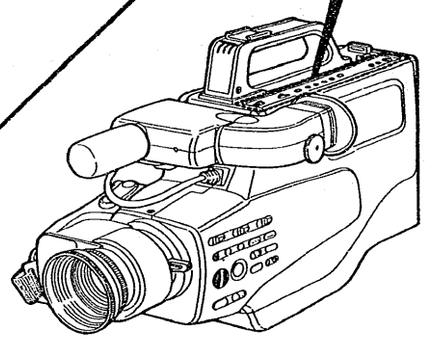
"POWER" ON/OFF Switch
Slide "POWER" ON/OFF switch to turn camera/recorder on. Slide again to turn camera/recorder off.
"POWER" light illuminates when "POWER" ON/OFF switch is slid and camera/recorder is on.

"POWER"/Dew Indicator Light
Flashing of the light indicates dew condensation on camera/recorder mechanism. While this light is flashing, the unit will not operate. If this occurs, eject the tape and leave the power on. When the light stops flashing, the unit can be operated.

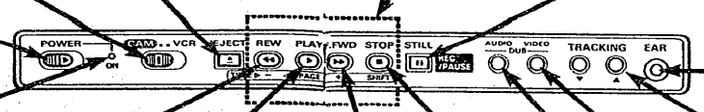
"REW" Button
Press this button during stop or fast forward mode, and fast-rewinding starts. "REWIND" indication appears in the viewfinder whenever the tape counter or time remaining is present.
Press the button during playback of tape, and the tape is played back in the rewind direction approximately 3 times faster than the normal speed to confirm the recorded contents.
Press "PLAY" button to return to normal playback mode or press "STOP" button to stop tape movement.
NOTE: You can also visually scan backward when the camera/recorder is record/pause (stand-by) mode by pressing and holding this button.

"PLAY" Button
Used for playback of tape recorded in the SP mode.
NOTE: When the camera/recorder is record/pause (stand-by) mode, pressing and holding this button will play the tape at normal speed.

"EJECT" Button
Operates with "POWER" either on or off, if a power source is connected to the camera/recorder.



These buttons are used for title making buttons when the "TITLE" button is pressed.
(See "TITLE RECORDING" on page 32.)



"F.FWD" Button
Press this button during stop or rewind mode, and fast-forwarding starts. "FAST FWD" indication appears in the viewfinder whenever the tape counter or time remaining is present.
Press the button during playback of tape, and the tape is played back in the forward direction approximately 3 times faster than the normal speed to confirm the recorded content.
Press "PLAY" button to return to normal playback mode or press "STOP" button to stop tape movement.
NOTE: You can also visually scan forward when the camera/recorder is record/pause (stand-by) mode by pressing and holding this button.

"STILL (REC/PAUSE)" Button
When this button is pressed during recording, the tape stops and the camera/recorder enters the record/pause (stand-by) mode. When this button is pressed again, the tape runs to resume recording. This button may be also used to display a still picture during playback mode.

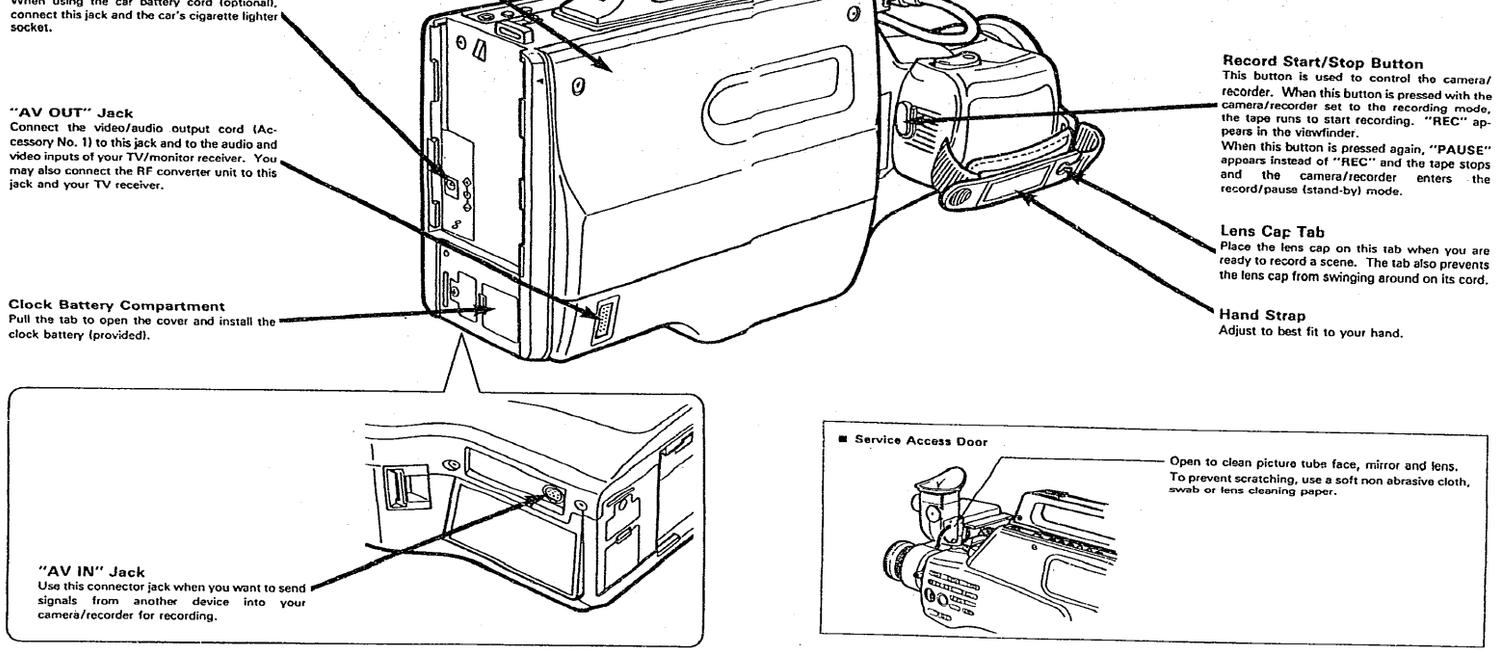
"EAR"phone Jack
Sound being recorded by the microphone or played back may be monitored by attaching earphone (Not supplied) to this jack.

"TRACKING" Control Buttons
Used when playing a tape recorded on another VCR. Adjust for best picture. Ejecting the cassette or pressing both buttons at the same time returns the tracking to the normal position.

"VIDEO DUB" Button
This button is used to record new video in place of existing video without erasing the audio.
See page 35.

"AUDIO DUB" Button
This button is used to record new audio in place of existing audio without erasing the video.
See page 34.

"STOP" Button
The "STOP" button is used to stop playback, rewind, and fast forward operations. The "STOP" button has no effect during record operation.



Cassette Holder
Press "EJECT" button to open the cassette holder. Be aware of the cassette direction when inserting.
NOTE: Power source must be connected to open the cassette holder.

"DC IN 9.6V" Jack
When using the car battery cord (optional), connect this jack and the car's cigarette lighter socket.

"AV OUT" Jack
Connect the video/audio output cord (Accessory No. 1) to this jack and to the audio and video inputs of your TV/monitor receiver. You may also connect the RF converter unit to this jack and your TV receiver.

Clock Battery Compartment
Pull the tab to open the cover and install the clock battery (provided).

"MIC" Jack
Connect an external microphone (Not supplied) here to record sound from the external microphone.
NOTE: Connecting an external microphone automatically switches off the built-in microphone.

Record Start/Stop Button
This button is used to control the camera/recorder. When this button is pressed with the camera/recorder set to the recording mode, the tape runs to start recording. "REC" appears in the viewfinder.
When this button is pressed again, "PAUSE" appears instead of "REC" and the tape stops and the camera/recorder enters the record/pause (stand-by) mode.

Lens Cap Tab
Place the lens cap on this tab when you are ready to record a scene. The tab also prevents the lens cap from swinging around on its cord.

Hand Strap
Adjust to best fit to your hand.

"AV IN" Jack
Use this connector jack when you want to send signals from another device into your camera/recorder for recording.

■ **Service Access Door**

Open to clean picture tube face, mirror and lens.
To prevent scratching, use a soft non abrasive cloth, swab or lens cleaning paper.

CHAPTER 2 DISASSEMBLY

1. CASE REMOVAL

1-1. Left Case

1. Turn the EVF neck in the direction of arrow (A). (See Fig. 2-1)
2. Remove ten (10) screws holding the left case.
3. Release two (2) tabs and open the left case in the direction of arrow (B).

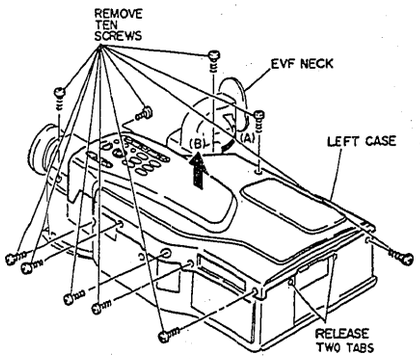


Fig. 2-1

1-2. Electronic Viewfinder (EVF)

ORDER FOR REMOVING PARTS	ITEM No.
Left Case	1-1

1. Move the EVF in the direction of arrow (A). (See Fig. 2-2)
2. While pulling the EVF shoe spring (1) in the direction of arrow (B), remove the EVF in the direction of arrow (A).
3. Remove one (1) screw and move the control circuit board holder in the direction of arrow (C) to release the EVF cable. (See Fig. 2-3)
4. Release two (2) tabs and open the main circuit board in the direction of arrow (D).
5. Disconnect connector CN401 on the main circuit board.

Note: When reinstalling the EVF, first attach the EVF shoe spring (1) to the EVF shoe.

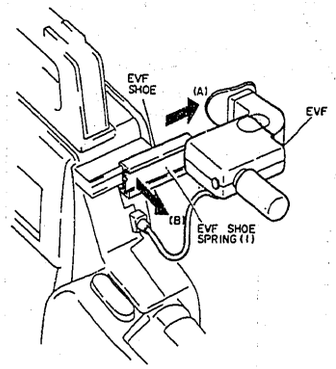


Fig. 2-2

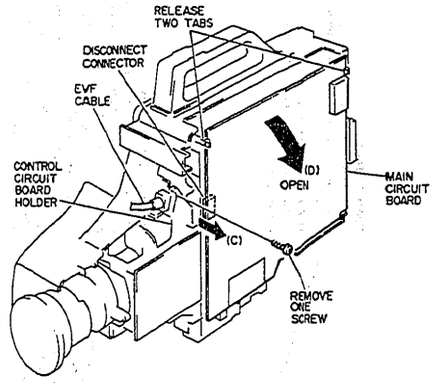


Fig. 2-3

1-3. Electronic Viewfinder (EVF) Shoe and Accessory Shoe

ORDER FOR REMOVING PARTS	ITEM No.
Left Case	1-1
EVF	1-2

1. Move the EVF shoe in the direction of arrow (A). (See Fig. 2-4)
2. While pulling the EVF shoe spring (2) in the direction of arrow (B), remove the EVF shoe in the direction of arrow (A).
3. Remove one (1) screw holding the accessory shoe spring.
4. lift up the accessory shoe spring and remove the accessory shoe spring in the direction of arrow (C).
5. Remove two (2) screws holding the accessory shoe.

Note: When reinstalling the EVF shoe, first attach the EVF shoe spring (2) to the EVF shoe.

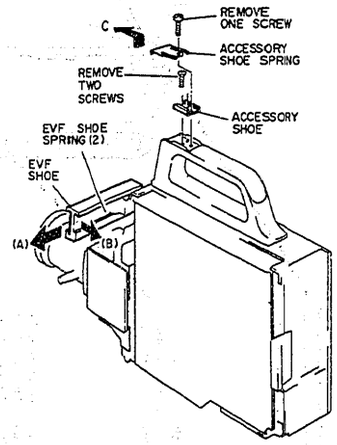


Fig. 2-4

1-4. Cassette Lid

1. Remove two (2) screws holding the cassette lid. (See Fig. 2-5)
2. Remove the cassette lid in the direction of arrow.

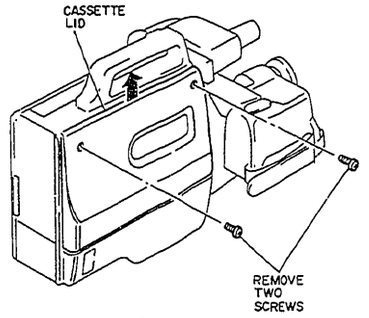


Fig. 2-5

1-5. Right Case

ORDER FOR REMOVING PARTS	ITEM No.
Left Case	1-1
EVF	1-2
Cassette Lid	1-4

1. Open the main circuit board. (See Fig. 2-3)
2. Release one (1) tab and remove the batt. terminal circuit board holder in the direction of arrow. (See Fig. 2-6)
3. Disconnect two (2) connectors (CN407, CN901) on the main circuit board.
4. Remove three (3) screws holding the right case. (See Fig. 2-7)
5. Pull the right case in the direction of arrow (A), and while releasing one (1) tab, remove the right case in the direction of arrow (B).

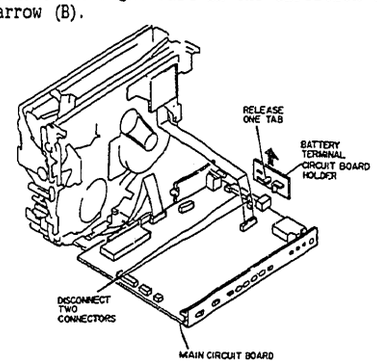


Fig. 2-6

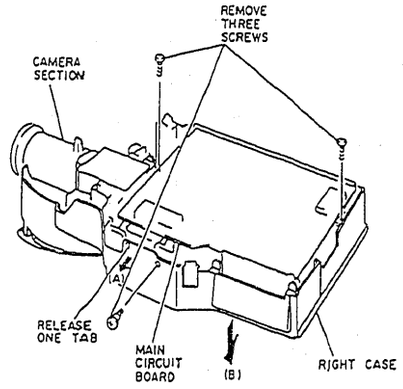


Fig. 2-7

1-6. Carrying Handle

ORDER FOR REMOVING PARTS	ITEM No.
Left Case	1-1
EVF	1-2
Cassette Lid	1-4
Right Case	1-5

1. Remove the welded sections holding the wires. (See Fig. 2-8)
2. Remove two (2) screws holding the carrying handle shoe
3. Remove one (1) screw holding the carrying handle, remove the carrying handle in the direction of arrow (A).
4. Disconnect connector CN906 on the DC light cont. circuit board.

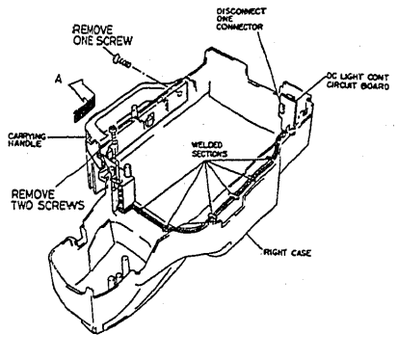


Fig. 2-8

2. CIRCUIT BOARD AND TAPE TRANSPORT MECHANISM REMOVAL

Note: Only the differences from the VM-2300A are described in "CIRCUIT BOARD AND TAPE TRANSPORT MECHANISM REMOVAL" in this manual. Refer to the VM-2300A Technical Data (No. 3282E) when removing the components which are not referred to in this manual.

2-8. Light Terminal Circuit Board

ORDER FOR REMOVING PARTS	ITEM No.
Accessory Shoe	1-3
Carrying Handle	1-6

1. Remove one (1) screw and remove the front cover in the direction of arrow (A). (See Fig. 2-19)
2. Remove one (1) screw holding the light terminal circuit board.
3. Pull the light terminal circuit board and the slide cover in the direction of arrow (B).

Note: When the light terminal slide cover is removed, the spring of the light terminal slide cover will come off.

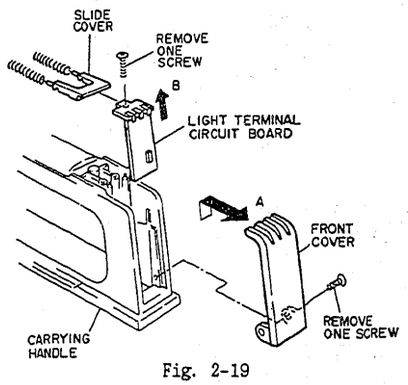


Fig. 2-19

MAIN MECHANICAL COMPONENT IDENTIFICATIONS (TOP VIEW)
MAIN MECHANICAL COMPONENT IDENTIFICATIONS (BOTTOM VIEW)

Note: The main mechanical component indentifications are the same as those in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

3. MAIN MECHANICAL COMPONENTS REMOVAL

Note: The method to remove the main mechanical components is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

4. LENS BLOCK REMOVAL

Note: The method to remove the lens block is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

5. ELECTRONIC VIEWFINDER (EVF) REMOVAL

Note: The method to remove the electronic viewfinder (EVF) is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

6. TABLE OF FLAT PACKAGE ICs/SOLDERING IRON TIPS

Note: The table of flat package ICs/soldering iron tips is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

JIGS AND TAPES FOR ADJUSTMENT

Note: The jigs and tapes for adjustment are the same as those in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

CHAPTER 3 MECHANICAL ADJUSTMENT

Note: The mechanical adjustment is the same as that in the VM-2300A. Refer to the VM-2300A Technical Data (No. 3282E).

CHAPTER 4 ELECTRICAL ADJUSTMENT

Note: Only the differences from the VM-2300A are described in "ELECTRICAL ADJUSTMENT" in the this manual. Refer to the VM-2300A Technical Data (No. 3282E) for the adjustment items which are not referred to in this manual.

2. CAMERA SECTION (VM-1350A(c) only)

2-11. CAMERA ADJUSTMENT

1) Subcarrier Lock Voltage Adjustment (Fig. 4-55)
This adjustment sets the subcarrier lock voltage to the specified value.

Test Point: TP201-1 Process
Adjust: CT201 (SUBCARRIER LOCK VOLT.) Process (IC203)
Observe: Frequency Counter

1. Connect the frequency counter to TP201-1.
2. Adjust CT201 (on the IC203) for 3.579545MHz ± 20Hz.

Note: Be careful when appling an adjustment driver to CT201 because the stray capacitance of the driver may vary the voltage. Use non-metalic adjustment tool.

2) Sensor Drive Frequency Adjustment (Figs. 4-54)
This adjustment sets the sensor drive frequency.

Test Point: TP101 (VCO) Sensor
Adjust: CT101 (Fo ADJ) Sensor
Observe: DVM

1. Connect the DVM to TP101.
2. Adjust CT101 for 3.0 ± 0.1V.

Note: Be careful when applying an adjustment drive to CT101 because the stray capacitance of the driver may vary the frequency.

3) Backfocus Adjustment (Fig. 4-15)
The propose of this adjustment is to ensure proper focus tracking throughout the zoom range.

Adjust: BACKFOCUS ADJUSTMENT POINT (BACKFOCUS LENS)
Observe: Color Video Monitor

1. Position the camera section two (2) meters from the backfocus adjustment chart and illuminate the object with approximately 100 lux.
2. Set the zoom to wide-angle end and set the index on the focus ring to two (2) meters.
3. Loosen the relay lens retaining screw.
4. Insert the backfocus adjustment driver into the backfocus adjustment hole and turn it to the left and right to optimize the focus.
5. Set the zoom to telephoto end and check that the chart is in focus. If it is not focused, set the zoom to wide-angle and readjust step 4.
6. Adjust so that the chart is approximately in focus at both the wide-angle and telephoto ends with the focus ring set to two (2) meters.

Note: After adjustment is completed, tighten the relay lens retaining screw and fix it with locking paint.

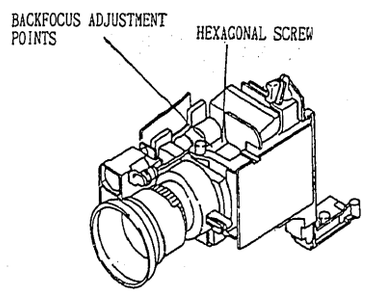


Fig. 4-15

4) Sensor OFG Voltage Adjustment
(Figs. 4-16, 4-54)
This adjustment prevents vertical blooming.

Test Point: VIDEO OUT (AV output jack)
Adjust: RT101 (SENSOR OFG VOLTAGE) Sensor
Observe: Color Video Monitor

1. Point the camera at a 40 W to 60 W incandescent lamp one (1) meter away. (See Fig. 4-16)
2. Turn RT101 fully clockwies. Then turn RT101 gradually counterclockwies.
3. Adjust RT101 where the overflows of V.CCD appearing in the vertical direction of the monitor TV screen will disappear. If there is no overflow of V.CCD when RT101 is turned fully clockwise, it is not necessary to adjust RT101.
   Check that there is no roughness in the white section of the lamp.

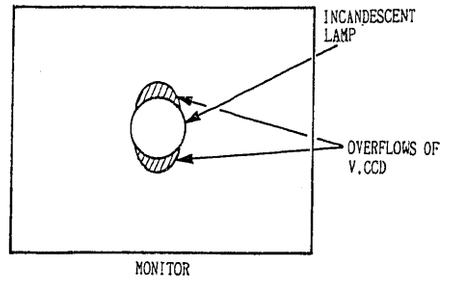


Fig. 4-16

5) Luma Setup Adjustment (Figs. 4-17, 4-55)
This adjustment sets the brightness of the picture.

Test Point: VIDEO OUT (AV output jack)
Adjust: RM201-4 (LUMA SETUP) Process
Observe: oscilloscope

1. Cap the lens.
2. Set the IRIS control to the CLOSE position.
3. Connect the oscilloscope to video out.
4. Trigger the oscilloscope at H. rate. (Use TP201-3 (HD) on the process circuit board.)
5. Adjust RM201-4 for 53mV ± 15mV (7.5IRE ± 2IRE) from the blanking level to the center of the waveform.
6. Set the IRIS control to the AUTO position.

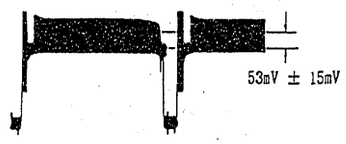


Fig. 4-17

6) AIC Level Adjustment (Figs. 4-18, 4-55)
This adjustment sets the balance point of the auto iris control.

Test Point: VIDEO OUT (AV output jack)
Adjust: RM201-5 (AIC) Process
Observe: Oscilloscope

1. Aim the camera at the gray scale chart.
2. Connect the oscilloscope to video out.
3. Trigger the oscilloscope at H. rate. (Use TP201-3 (HD) on the process circuit board.)
4. Adjust RM201-5 for 714mVp-p ± 15mV (100IRE ± 2IRE) from the blanking level to the center of the white level on the gray scale.

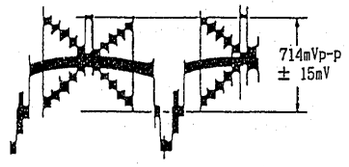


Fig. 4-18

7) Matrix Adjustment (Figs. 4-19, 4-55)
This adjustment corrects for unevenness in tint.

Test Point: TP101-7 Process
Adjust: RT204 (MATRIX) Process
Observe: Oscilloscope

1. Aim the camera at the color bar chart.
2. Connect the oscilloscope to TP101-7.
3. Trigger the oscilloscope at P.BLK2. (Use TP101-4 on the process circuit board.)
4. Adjust RT204 so that the blue level becomes 50% ± 10% of the white level.

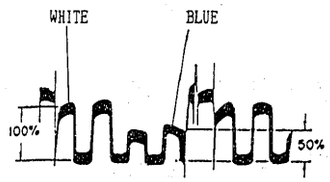


Fig. 4-19

8) White Balance Hold Voltage Setting (Fig. 4-55)

Test Point: TP201-5 Process
TP201-11 (GND) Process
Observe: DVM
DC Power Supply

1. Cap the lens.
2. Connect the DVM and DC power supply to TP201-5.
3. Apply DC3.3V ± 0.05V to TP201-5.
4. Connect TP201-5 to ground (TP201-11) and remove ground (TP201-11) connection from TP201-5.

Note: White Balance Hold Voltage Setting is required prior to performing R-Y, B-Y Setup Adjustment and White Balance Adjustment.

9) R-Y, B-Y Setup Adjustment (Figs. 4-20, 4-55)
This adjustment sets the proper black balance of the picture.

Test Point: VIDEO OUT (AV output jack)
Adjust: RM201-2 (B-Y SETUP) Process
RM201-3 (R-Y SETUP) Process
Observe: Oscilloscope
Vectorscope

Adjustment using the oscilloscope (Fig. 4-8)
1. Cap the lens.
2. Connect the oscilloscope to video out.
3. Trigger the oscilloscope at H. rate. (Use TP201-3 (HD) on the process circuit board.)
4. Adjust RM201-2 and RM201-3 for minimum carrier in the waveform.

Adjustment using the vectorscop
See page 4-3.

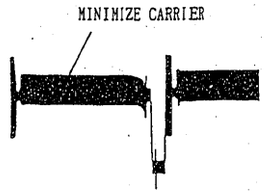


Fig. 4-20

10) White Balance Adjustment (Figs. 4-21, 4-55)
This procedure sets the correct red and blue signal levels for proper white balance circuit operation.

Test Point: VIDEO OUT (AV output jack)
Adjust: RT201 (RED GAIN) Process
RT202 (BLU GAIN) Process
Observe: Oscilloscope
Vectorscope

Adjustment using the oscilloscope (Fig. 4-21)
1. Attach the light balancing filter C10 (C8 + C2) over the lens.
2. Aim the camera at the gray scale chart.
3. Connect the oscilloscope to video out.
4. Trigger the oscilloscope at H. rate. (Use TP201-3 (HD) on the process circuit board.)
5. Adjust RT201 and RT202 to minimize the carriers at each step of the waveform.

Adjustment using the vectorscope
See Page 4-3.

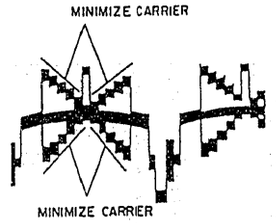


Fig. 4-21

11) Chroma Level Adjustment (Figs. 4-22, 4-55)
This adjustment sets the chroma level.

Test Point: VIDEO OUT (AV output jack)
Adjust: RT203 (CHROMA LEVEL) Process
Observe: Oscilloscope
Vectorscope

Adjustment using the oscilloscope (Fig. 4-22)
1. Remove the DC power supply (3.3V) from TP201-5.
2. Attach the light balancing filter C10 (C8 + C2) over the lens.
3. Aim the camera at the color chart.
4. Connect the oscilloscope to video out.
5. Trigger the oscilloscope at H. rate. (Use TP201-3 (HD) on the process circuit board.)
6. Adjust RT203 so that the red level of the waveform is 600mV ± 50mV (84IRE ± 7IRE). Check that the tint of the chart and the tint of the picture approximately match at this time.

Adjustment using the vectorscope
See Page 4-3

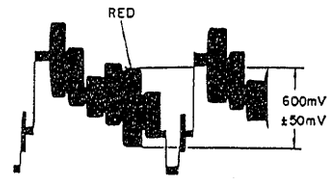


Fig. 4-22

2-12. ADJUSTMENT USING THE VECTORSCOPE

Note 1: Use the video output jack as the test point for all adjustments.
Note 2: Terminate the vectorscope with 75 ohm or connect the vectorscope to the video output jack terminated with 75 ohm.

ITEM No.	ADJUSTMENT NAME	SUBJECT	ADJUSTMENT POINT	PROCEDURE	Fig. No.
9)	R-Y, B-Y Setup Adjustment	Lens Cap	RM201-2 RM201-3	1. Cap the lens. 2. Apply DC 3.3V (± 0.05V) to TP201-5. (See ITEM 8) 3. Adjust RM201-2 and RM201-3 so that the bright spot is positioned at the center.	4-13
10)	White Balance Adjustment	Gray Scale	RT201 RT202	1. Apply DC 3.3V (± 0.05V) to TP201-5. (See ITEM 8) 2. Attch the light balancing filter C10 (C8 + C2) over the lens. 3. Adjust RT201 and RT202 so that the bright spot is positioned at the center.	4-13
11)	Chroma Level Adjustment	Color Bar	RT203	1. Attact the light balancing filter C10 (C2 + C8) over the lens. 2. Adjust RT203 so that the red vector is equal to more than 230% ± 5% when compared to the burst level.	4-14

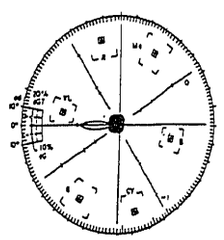


Fig. 4-13

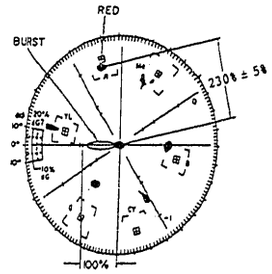


Fig. 4-14

2-13. ADJUSTMENT COMPONENTS LOCATIONS

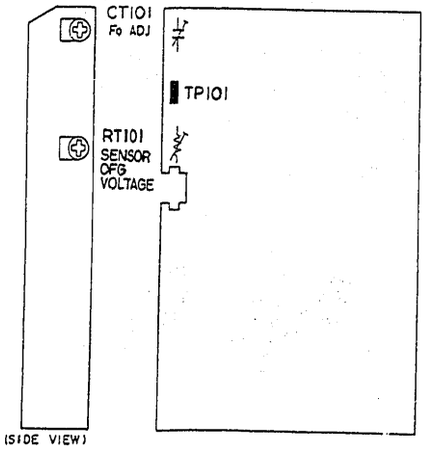


Fig. 4-54 Sensor Circuit Board (Solder Side)

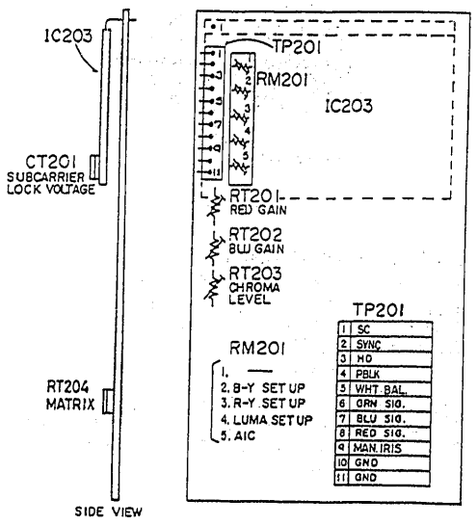


Fig. 4-55 Process Circuit Board (Components Side)

CHAPTER 5 SCHEMATIC DIAGRAMS AND CIRCUIT BOARD DIAGRAMS

WHEN USING THIS SERVICE REFERENCE MATERIAL

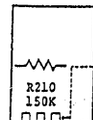
1. Markings in Schematic and Circuit Board Diagrams

(1) Parts with marks "■" attached to circuit numbers in the schematic and circuit board diagrams are discrete components.
(2) Parts with marks (Z) in the circuit board diagrams are leadless jumpers.

2. How to Read Abbreviations

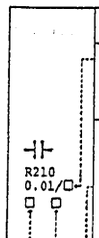
Values, dielectric resistances (power capacitances), tolerances, grades of resistors (excluding variable resistors, etc.) and capacitors are indicated in the schematic diagrams using abbreviations. Collate these abbreviations and the following tables for reading abbreviations to replace parts correctly.

2-1. Resistors



Value		No indication ..... ohm K ..... kohm
Tolerance		No indication ..... ±5% K ..... ±10% M ..... ±20%
Power capacitance		No indication ..... 1/8W (All capacitances other than 1/8W are indicated in schematic diagrams with W omitted)
Type		No indication .. Carbon film fixed RC ..... Carbon solid RW ..... Power-type wire-wound solid RS ..... Metal oxide film solid RN ..... Metal film solid
Example R210 150K RC.1/2.K		150 kohm, carbon solid 1/2W, ±10%

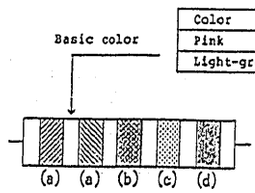
2-2. Capacitors



Value		No indication ..... μF P ..... PF
Dielectric resistance		No indication ..... 50WV (All resistances other than 50WV and those of electrolytic capacitors are indicated with WV omitted.)
Tolerances		No indication ..... ±10% J ..... ±5% M ..... ±20% C ..... ±0.25PF Z ..... +80%/−20% (No indication with electrolytic capacitors (excluding tantalum and high stability electrolytic capacitors)
Type		No indication .. Ceramic, general electrolytic (see circuit symbol to distinct from ceramic) MYL ..... Mylar (Polyester film) STY ..... Styrol TA ..... Tantalum KU ..... High stability electrolytic MP ..... Metalized paper
Example C210 0.01/25 ..... MYL.J		Mylar, 0.01μF, 25WV ±5%

3. How to Read Capacitance of Resistance-Type Capacitors and Coils

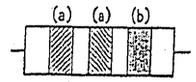
3-1 Capacitors



Color	Related voltage
Pink	25V
Light-green	50V

Color	Capacitance (a)	Multiplier (b)	Tolerance (c)	Characteristics (d)
Black	0	10^0	±20%	For temperature compensation
Brown	1	10^1		
Red	2	10^2		
Orange	3	10^3		
Yellow	4	10^4		
Green	5	10^5		
Blue	6	10^6		
Purple	7			
Gray	8		±30%	High permittivity type
White	9			For temperature compensation
Gold			±5%	
Silver			±10%	

3-2 Coils



4. Cautions on Use of MOS ICs

(1) MOS ICs are inserted in black foam for shipment. This foam is a conductor which short-circuits between the leads to prevent damage. Do not remove ICs from this foam during storage. Avoid removing ICs from this foam, placing them on plastic which is likely to be charged with static electricity or inserting them into styrol foam.
(2) High voltages may be applied during soldering caused by leakages from the soldering iron, so be sure to ground the tip of the soldering iron or use a low voltage soldering iron.
(3) The human body and clothes made of synthetic fibres or nylon gloves may be charged with several thousands volts of static electricity because of friction, so workers should be grounded.
(4) Be sure to ground measuring instruments such as oscilloscopes, VTVMs, etc. used for repairs.

5. Measure the voltages at each section with the negative side of power supply as a reference.

The voltages in the camera section are measured with the VTR in the record mode, and those in the VTR section are measured in the record and playback modes.

* Voltages in ( ) are in the record mode.
* One voltage value is common for recording and playback.

LEADLESS COMPONENT IDENTIFICATION

1. Leadless Transistors

The leadless transistor number is indicated by a code on its surface, using one letter, one letter and one numeral, two letters, two letters and one numeral, two numerals, two numerals and one letter, or three letters.

Letter	Transistor Number	Letter	Transistor Number
A	2SB709	H	2SA1036K
A(R)	2SB1218R(AR)	I	2SB792
A(S)	2SB766S(AS)	J	2SC2735
A(J)	2SB1000J(AJ)	K	2SA1036
B	2SC1621	K(P)	2SC2413P(KP)
B(J)	2SB1001J(BJ)	L	2SC2462
B(R)	2SC4081R(BR)	M	2SA1052
B(R)	2SC2412AR(BR)	N	2SC1653
B(S)	2SC2412KS(BS)	N(E)	2SD1306E(NE)
C	2SA1122	P	2SD814
C(L)	2SD999L(CL)	P(E)	2SA1171E(PE)
C(R)	2SB710R(CR)	Q	2SC2620
C(R)	2SC4097R(CR)	Q(O)	2SC2714O(QO)
C(R)	2SC2411R(CR)	R	2SC2618
C(Q)	2SC2411KQ(CQ)	S	2SA1121
D	2SC2463	S(Q)	2SC3082KQ(SQ)
D(L)	2SB798L(DL)	U	2SC2404
E	2SA1022	W	2SD602
F	2SC2619	Y	2SD601
F(S)	2SA1037KS(FS)	Y(R)	2SD1819R(YR)
F(R)	2SA1576R(FR)	Z	2SD874
-	- - - -	-	- - - -
AA(S)	2SD1757KS(AAS)	DB(R)	2SD1766R(DBR)
BC(R)	2SB1188R(BCR)	IR(D)	2SA1484D(IRD)
BF(R)	2SB1308R(BFR)		
-	- - - -	-	- - - -
1D(T)	2SD1328T(1DT)	1C(R)	2SB902R(1CR)
-	- - - -	-	- - - -
B(3)	2SC1621(3) (B3)	L(6)	MMBC1623(6)(L6)
C(7)	2SA811(7)(C7)	L(6)	2SC1623(6)(L6)
L(7)	2SC2812(7)(L7)	F(2)	2SC1009(2)(F2)
M(6)	2SA812(6)(M6)	M(6)	2SA1179(6)(M6)
-	- - - -	-	- - - -
D(16)	2SC1622A(16)(D16)	R(25)	2SC3356(25)(R25)
R(35)	2SC3583(35)(R35)	R(45)	2SC3585(45)(R45)
Y(25)	NTM3906(25)(Y25)		
-	- - - -	-	- - - -
1(D)	2SC3127D(1D)		
-	- - - -	-	- - - -
S1	FMS1	S2	FMS2
T1	IMT1	W1	FMW1
W2	FMW2	W3	FMW3
X1	IMX1	Y1	FMY1
Y3	FMY3	Z1	IMZ1
Z2	IMZ2		
-	- - - -	-	- - - -
4R	XN1C301	5H	XN4501
5K	XN4401		
Digital Transistor			
04	DTC114TK	06	DTC144TK
13	DTA143EK	15	DTA124K
15(s)	DTA124EU	16	DTA144EK
16(s)	DTA144EU	23	DTC143EK
24	DTC114EK	24(s)	DTC114EU
25	DTC124K	25(s)	DTC124EU
26	DTC144K	26(s)	DTC144EU
33	DTA143XK	43	DTC143XK
52	DTA123YK	64	DTC114YK
-	- - - -	-	- - - -
6B	UN5112	8B	UN5212
-	- - - -	-	- - - -
F52	DTB123	G21	DTD113ZK
H03	DTC343TK	H27	DTC363EK
R31	FP1L2Q		
-	- - - -	-	- - - -
A1	FMA1	A2	FMA2
B2	IMB2	C2	FMC2
D2	IMD2	G1	FMG1
G2	FMG2	G5	FMG5
H2	IMH2		

Letter	Transistor Number	Letter	Transistor Number
FET			
G	2SK302	J	2SK208
K	2SK160	W	2SK322
X	2SK157	X(4)	2SK94(4)(X4)
X(17)	2SK425(17)(X17)		
Y	2SK197	Z	2SK217
-	- - - -	-	- - - -
XA	2SK980		
-	- - - -	-	- - - -
3	2SK620	3(O)	2SK621(O)(3O)
-	- - - -	-	- - - -
1M	2SA1052	1F	2SK321
1K	2SK316	2B	2SK374

* "(s)" in the above table shows a component with smaller size.
* Codes on the digital transistors show only the transistor numbers.

(1) Identification for two letters.
Use this code and the following chart for component identification.

Example:

Code	Number
CD	2SA1122D
LD	2SC2462D

Fig.5-1 Leadless Transistor Code

(2) Identification for two types of one letter and one numeral.
Use this code and the following chart for component identification.

Letter	Transistor Number
L	2SC1623

Example:

Code	Number
L5	2SC1623(5)
L6	2SC1623(6)

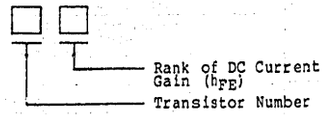
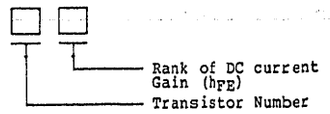


Fig.5-2 Leadless Transistor Code

Example:

Code	Number
1D	2SC3127D



Note: Codes S1, S2, T1, W1, W2, W3, X1, Y1, Y3, Z1 and Z2 show only the transistor numbers.

Fig.5-3 Leadless Transistor Code

(3) Identification for one numeral and two letters.
Use this code and the following chart for component identification.

Example:

Code	Number
1FQ	2SK321Q

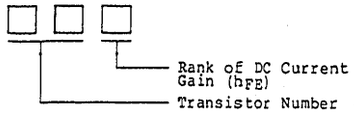


Fig.5-4 Leadless Transistor Code

(4) Identification for one letter and two numerals.
Use this coce and the following chart for component identification.

Example:

Code	Number
R25	25C3356

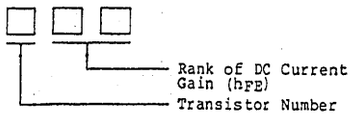


Fig. 5-5 Leadless Transistor Code

(5) Identification for two letters and one numeral.
Use this code and the following chart for component identification.

Example:

Code	Number
DV5	2SD596

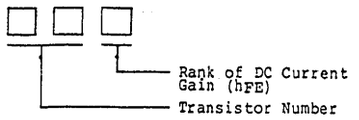


Fig. 5-6 Leadless Transistor Code

(6) Identification for three letters.
Use this code and the following chart for component identification.

Example:

Code	Number
AAS	2SD1757KS

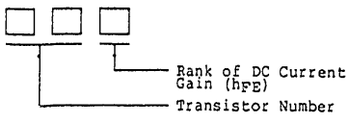


Fig. 5-7 Leadless Transistor Code

2. Leadless Diodes

Leadless diode numbers are indicated by a code on the surface, using one letter and one numeral, two letters, two letters and one numeral, two numerals, two numerals and one letter, or three numerals.
Use this code and the following chart for component identification.

Code	Diode Number	Code	Diode Number
BE	1SV172		
MC	MA153	MC(s)	MA143
MH	MA151K	MH(s)	MA141K
MN	MA151WA	MN(s)	MA141WA
MO	MA152WA		
MT	MA151WK	MT(s)	MA141WK
MU	MA152WK		
-	- - - -	-	- - - -
M1D	MA160	M1P	MA714
M2A	MA122	S1A	1SR143
-	- - - -	-	- - - -
N	DAN202K	Z	DA106K
-	- - - -	-	- - - -
A3	1S2835	A5	1S2837
C1	HSM88S	C2	HSM276S
-	- - - -	-	- - - -
1A	MA110		
-	- - - -	-	- - - -
3.0L	MA3030L	4.3L	MA3043L
4.7M	MA3047M	5.1M	MA3051M
5.1L	MA3051L	5.6M	MA3056M
6.2L	MA3062L	6.8M	MA3068
6.8M	MA3068M	7.5H	MA3075H
7.5L	MA3075L	8.2M	MA3082M
9.1M	MA3091	9.1M	MA3091M
10L	MA3100L	56M	MA3056M
75L	MA3075L	82M	MA3082M
91M	MA3091M		
-	- - - -	-	- - - -
20	HZM6-B	27	RD2.7M-B
30	RD3.0M-B	51	RD5.1M-B2
56	RD5.6M-B	91	RD9.1M-B
-	- - - -	-	- - - -
102	RD10M-B2	122	RD12M-B2
163	RD16M-B3	182	RD18M-B2
271	RD2.7M-B	272	RD2.7M-B2
301	RD3.0M-B	362	RD3.6M-B2
391	RD3.9M-B1	512	RD5.1M-B2
561	RD5.6M-B	621	RD6.2M-B1
681	RD6.8M-B	683	RD6.8M-B3
911	RD9.1M-B		

* "(s)" in the above table shows a component with smaller size.

3. Leadless Resistors

The resistor value is indicated on the surface of the component, using a three-digit numbers, or one letter and one numeral.

(1) Identification for three digit numbers.
Read this code following the same procedure as when reading the color code on discrete resistors.

Example:

Code	Value
330	$33 \times 10^0 = 33$ ohms
561	$56 \times 10^1 = 560$ ohms
123	$12 \times 10^3 = 12$K ohms
1R2	1 + 0.2 = 1.2 ohms (R: Decimal point)

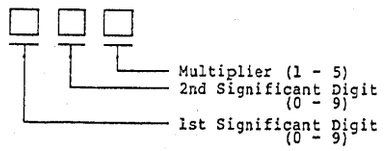


Fig. 5-8 Leadless Resistor Code

(2) Identification for one letter and one numeral.
Use this code and the following chart for component identification.

Letter	Value	Letter	Value	Letter	Value
A	1	J	2.2	S	4.7
C	1.2	L	2.7	U	5.6
E	1.5	N	3.3	W	6.8
G	1.8	Q	3.9	Y	8.2

Example:

Code	Value
A1	1×10^1 = 10 ohms
G2	1.8×10^2 = 180 ohms
L3	2.7×10^3 = 2700 ohms
S4	4.7×10^4 = 47K ohms
W5	6.8×10^5 = 680K ohms

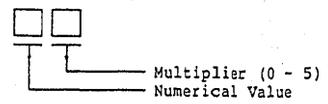
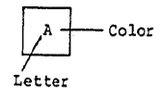


Fig. 5-9 Leadless Resistor Code

4. Leadless Capacitors

The capacitance value is indicated on the surface of the component, using body color and one letter, or one letter and one numeral.

(1) Identification for body color and one letter.

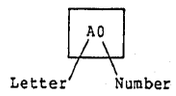


Body Color	Letter	Value	Body Color	Letter	Value
Red	A	1(PF)	Blue	A	100(PF)
	C	2		C	120
	E	3		E	150
	G	4		G	180
	J	5		J	220
	L	6		L	270
	N	7		N	330
	Q	8		Q	390
	S	9		S	470
				U	560
				W	680
				Y	820
Black	A	10(PF)	White	A	0.001(μF)
	C	12		E	0.0015
	E	15		J	0.0022
	G	18		L	0.0027
	J	22		N	0.0033
	L	27		S	0.0047
	N	33		W	0.0068
	Q	39	Green	A	0.01(μF)
	S	47		E	0.015
	U	56		J	0.022
	W	68		N	0.033
	Y	82		S	0.047
				U	0.056
				W	0.068
				Y	0.082
			Yellow	A	0.1(μF)

Example:

Color	Code	Value
Red	A	1PF
Black	A	10PF

(2) Identification for one letter and one numeral.



Letter /Number	Value	Letter /Number	Value
A0	1(PF)	A2	100(PF)
H0	2	C2	120
M0	3	E2	150
d0	4	G2	180
f0	5	J2	220
m0	6	L2	270
n0	7	N2	330
t0	8	Q2	390
y0	9	S2	470
		U2	560
A1	10(PF)	W2	680
C1	12	Y2	820
E1	15		
G1	18	A3	0.001(μF)
J1	22	E3	0.0015
L1	27	J3	0.0022
N1	33	N3	0.0033
Q1	39	S3	0.0047
S1	47	W3	0.0068
U1	56		
W1	68	A4	0.01(μF)
Y1	82	E4	0.015
		J4	0.022
		N4	0.033
		S4	0.047
		U4	0.056
		W4	0.068
		A5	0.1

Example:

Letter /Number	Value
A0	1PF
A1	10PF

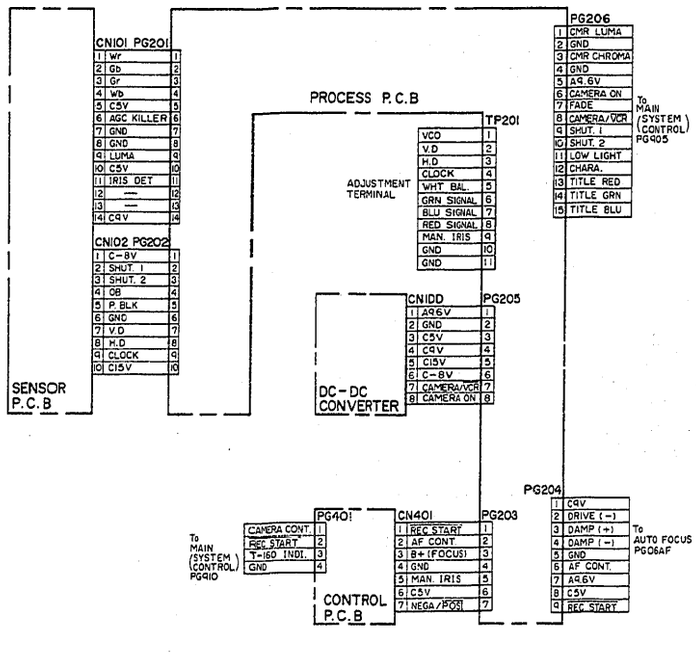
5. Leadless Jumper

The leadless jumper is indicated as shown below.

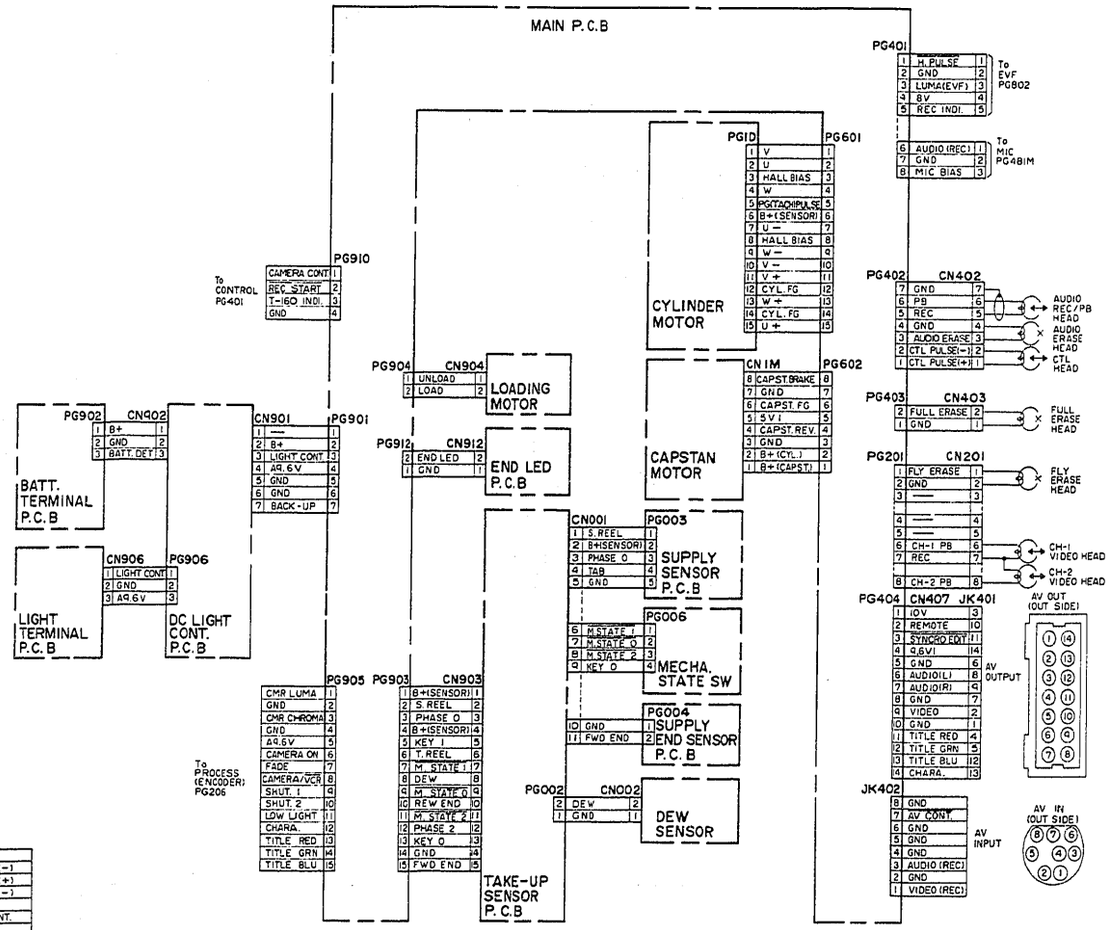
(1) (2) (3) (4)

CIRCUIT BOARD CONNECTION DIAGRAM

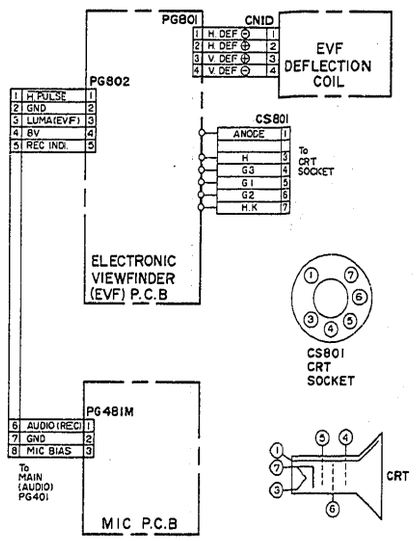
•CAMERA



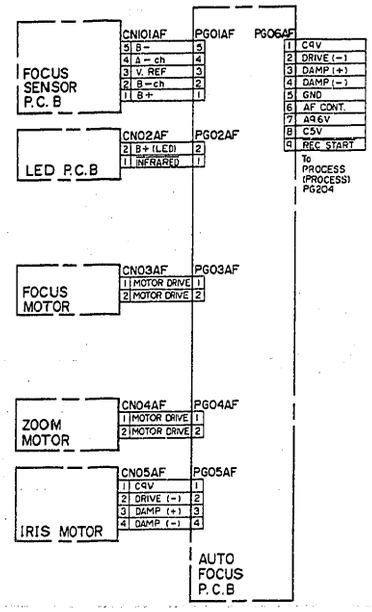
•VTR



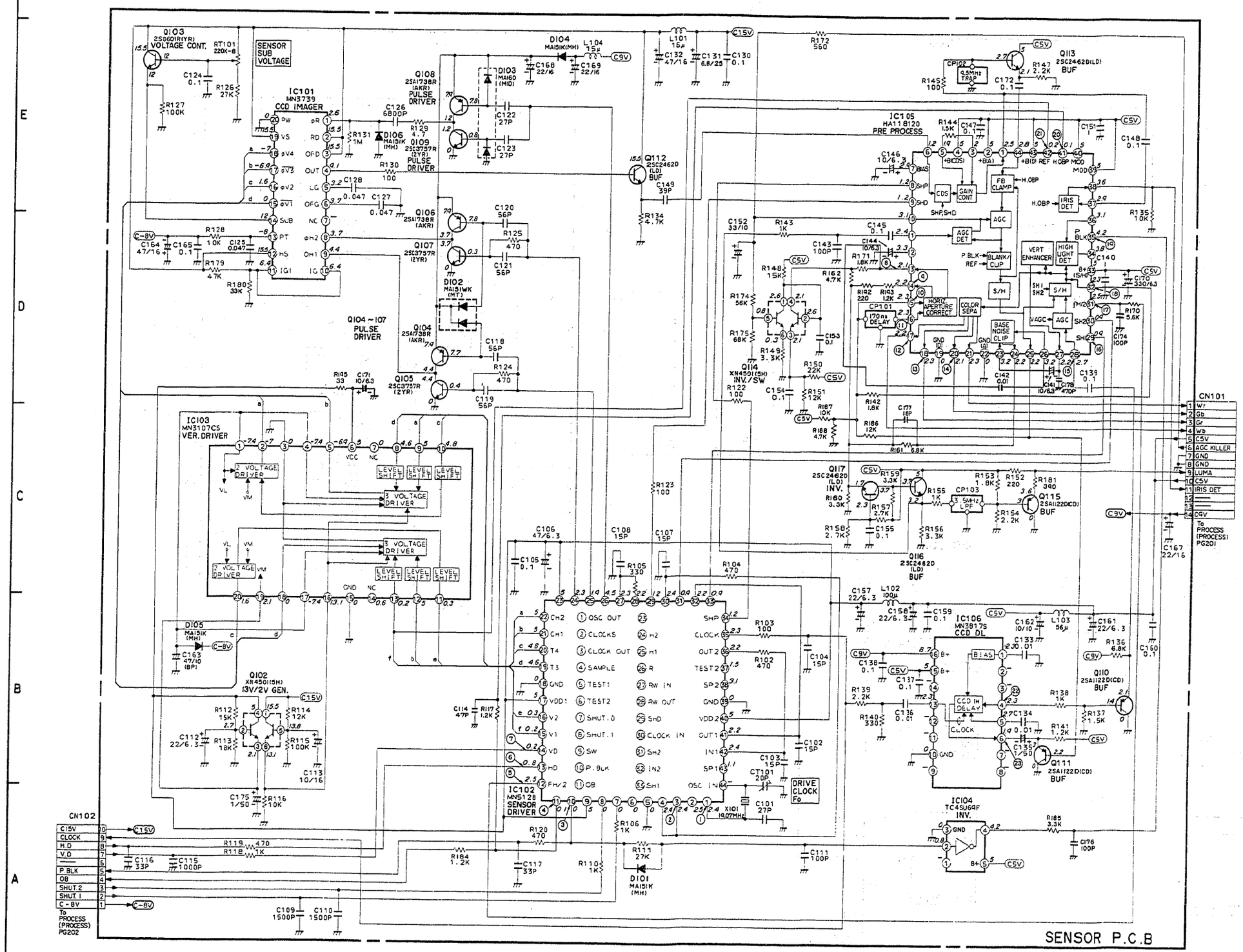
•ELECTRONIC VIEWFINDER(EVF)



•AUTO FOCUS

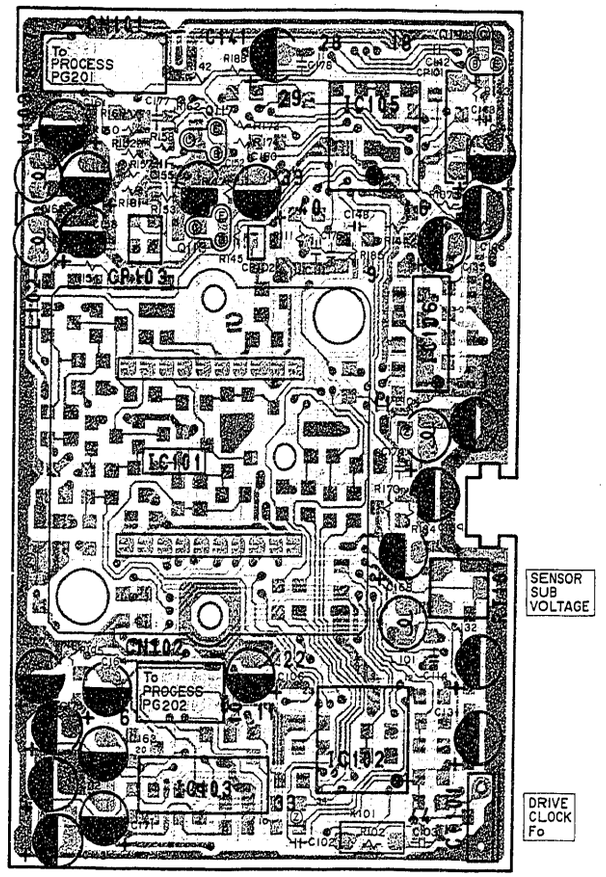


SENSOR SCHEMATIC



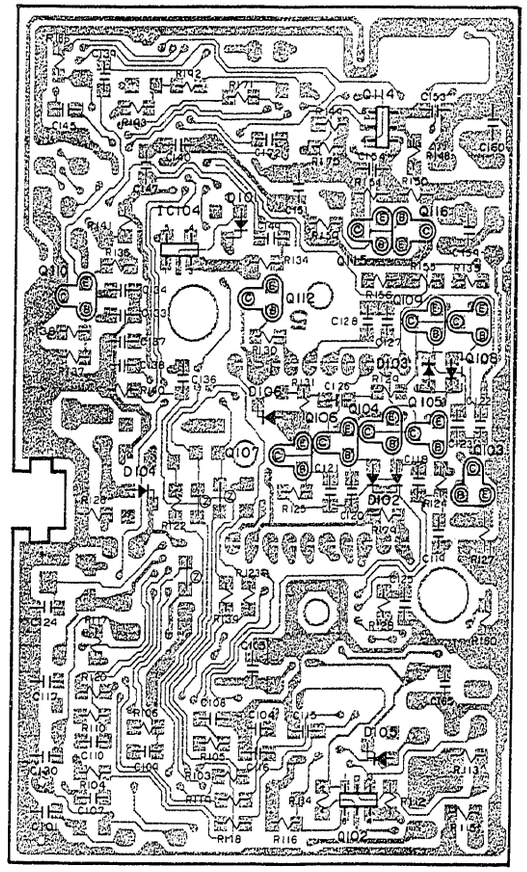
SENSOR 5-7 5-8 SENSOR

SENSOR CIRCUIT BOARD



NOTE : MARK "Ⓩ" IS LEADLESS (CHIP) JUMPER.

SENSOR P.C.B (COMPONENT SIDE)



NOTE : MARK "Ⓩ" IS LEADLESS (CHIP) JUMPER.

SENSOR P.C.B (SOLDER SIDE)

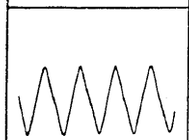
: Soldered side

: Parts side

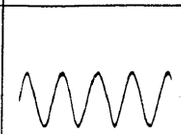
: Soldered side

SCHEMATIC	PAGE	SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19	MIC	5-20
AUDIO	5-35	LUMINANCE/CHROMA	5-29
BATT.-/LIGHT - TERMINAL	5-19	PROCESS	5-11
CAPSTAN MOTOR	5-26	PROCESS [VM-1350A(C)]	5-43
CONTROL	5-16	PRE AMP	5-28
CYL. MOTOR DRIVE	5-26	SENSOR	5-7
DC-DC CONVERTER	5-27	SENSOR [VM-1350A(C)]	5-39
DC LIGHT CONT.	5-19	SYSTEM CONTROL	5-21
ENCODER	5-15	SWITCHING REGURATOR	5-25
ENCODER [VM-1350A(C)]	5-47	SERVO	5-23
ELECTRONIC VIEWFINDER, INDI.	5-17	TROUBLE SENSOR	5-37
FOCUS SENSOR	5-18		

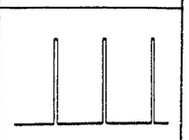
1-A IC102-1 4.6Vp-p 1V/20.0nsec.cm COLOR CHART



2-A IC102-3 6.4Vp-p 2V/50.0nsec.cm COLOR CHART

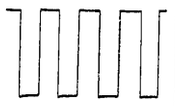


3-A IC102-10 5.2Vp-p 1V/20.0μ sec.cm COLOR CHART



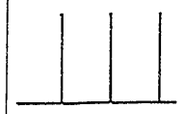
4-A IC102-11 5.2Vp-p 1V/20.0μ sec.cm COLOR CHART

5-A IC102-12 5.2Vp-p 1V/50.0μ sec.cm COLOR CHART



6-A IC102-13 5.2Vp-p 1V/20.0μ sec.cm COLOR CHART

7-A IC102-14 5.2Vp-p 1V/5.0msec.cm COLOR CHART



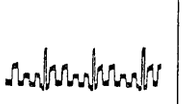
8-A IC105-13 800mVp-p 0.2V/20.0μ sec.cm COLOR CHART

9-A IC105-14 310mVp-p 0.1V/20.0μ sec.cm COLOR CHART

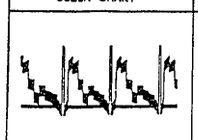
10-A IC105-15 390mVp-p 0.1V/20.0μ sec.cm COLOR CHART

11-A IC105-16 370mVp-p 0.1V/20.0μ sec.cm COLOR CHART

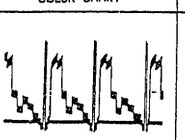
12-A IC105-17 590mVp-p 0.1V/20.0μ sec.cm COLOR CHART



13-A IC105-18 540mVp-p 0.1V/20.0μ sec.cm COLOR CHART

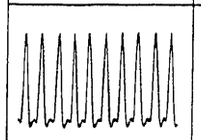


14-A IC105-20 580mVp-p 0.1V/20.0μ sec.cm COLOR CHART

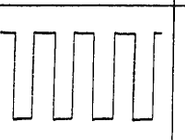


15-A IC105-28 620mVp-p 0.2V/20.0μ sec.cm COLOR CHART

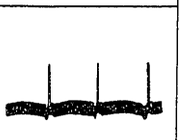
16-A IC105-29 5.4Vp-p 1V/50.0nsec.cm COLOR CHART



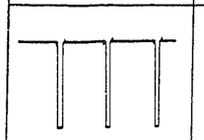
17-A IC105-31 5.2Vp-p 1V/50.0μ sec.cm COLOR CHART



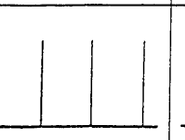
18-A IC105-32 630mVp-p 0.2V/20.0μ sec.cm COLOR CHART



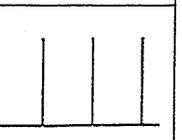
19-A IC105-35 5.1Vp-p 1V/20.0μ sec.cm COLOR CHART



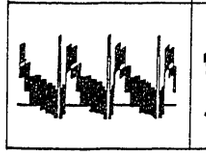
20-A IC105-41 4.8Vp-p 1V/20.0μ sec.cm COLOR CHART



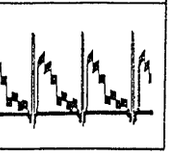
21-A IC105-42 5.1Vp-p 1V/20.0μ sec.cm COLOR CHART



22-A IC106-4 850mVp-p 0.2V/20.0μ sec.cm COLOR CHART



23-A IC106-6 530mVp-p 0.1V/20.0μ sec.cm COLOR CHART



PROCESS (PROCESS SECTION) SCHEMATIC

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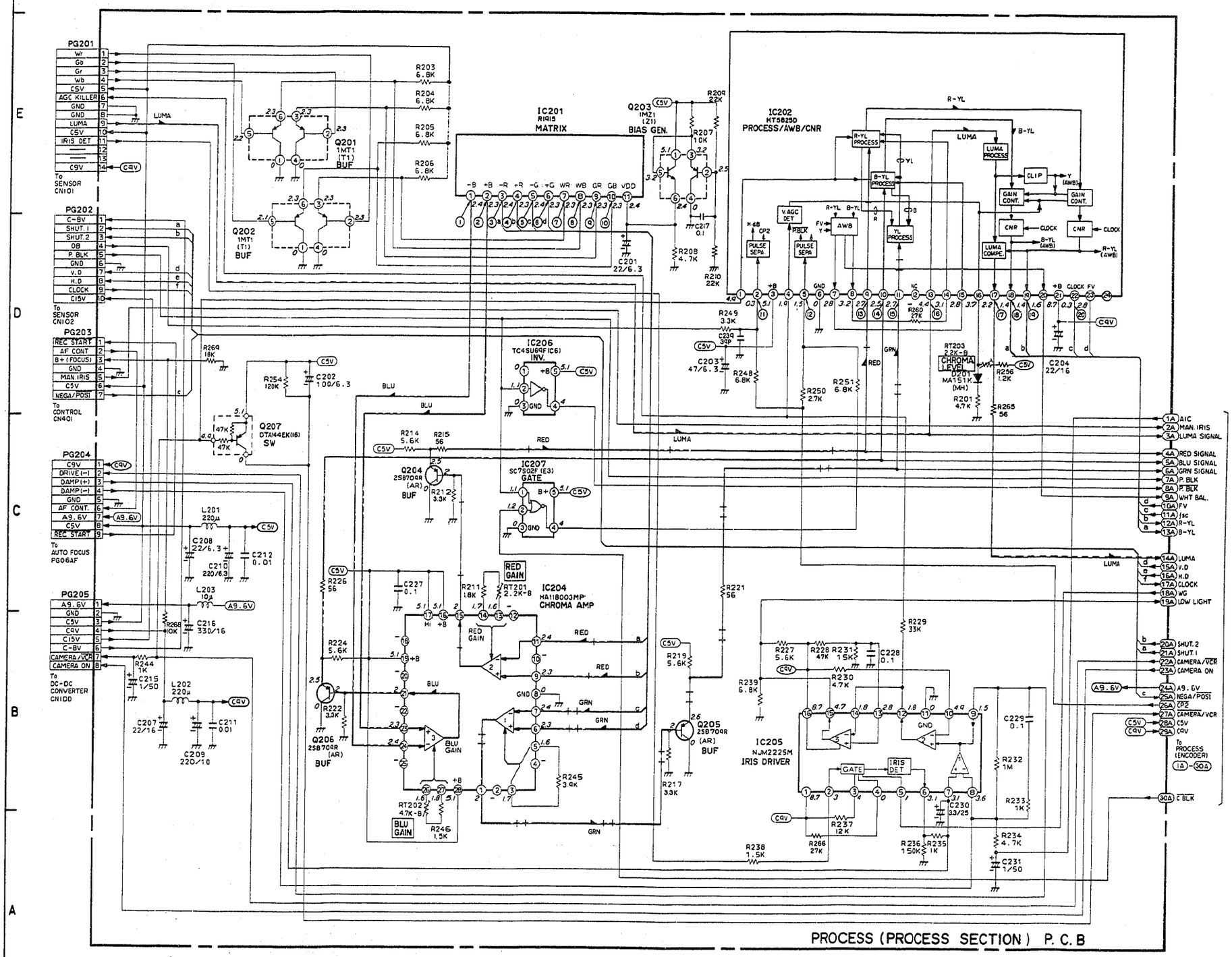
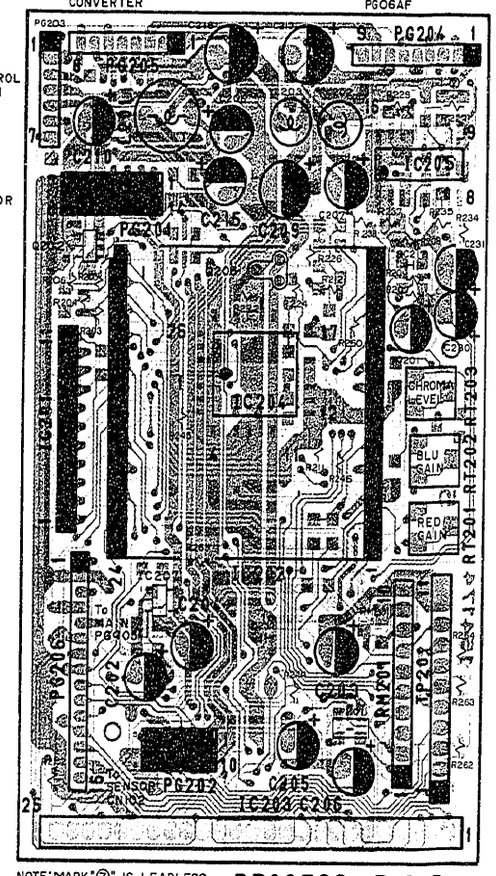
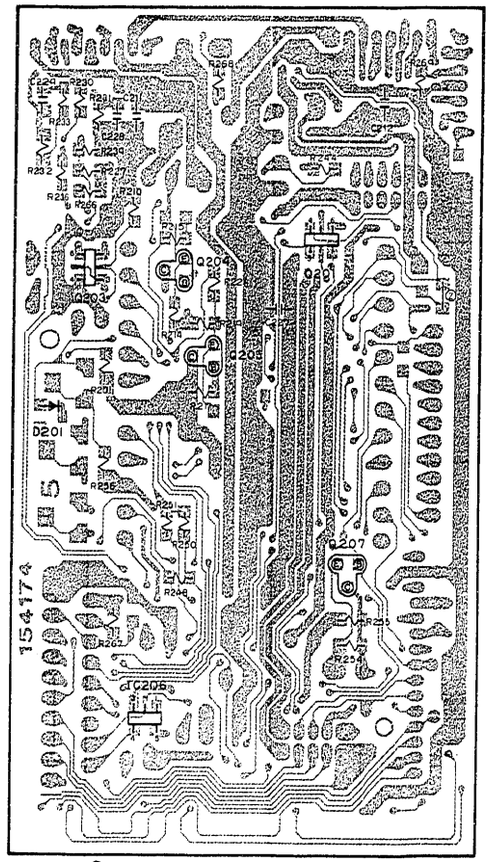


PROCESS CIRCUIT BOARD



NOTE:MARK"Ⓩ" IS LEADLESS (CHIP) JUMPER.

PROCESS P.C.B (COMPONENT SIDE)



NOTE:MARK"Ⓩ" IS LEADLESS (CHIP) JUMPER.

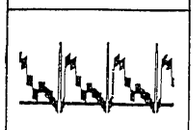
PROCESS P.C.B (SOLDER SIDE)

: Soldered side

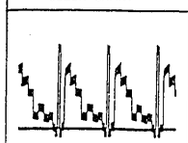
: Soldered side

: Parts side

1-A IC201--1 360mVp-p 0.1V/20.0μ sec.cm COLOR CHART

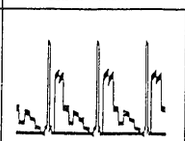


2-A IC201-2 520mVp-p 0.1V/20.0μ sec.cm COLOR CHART

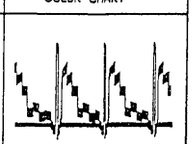


3-A IC201-3 440mVp-p 0.1V/20.0μ sec.cm COLOR CHART

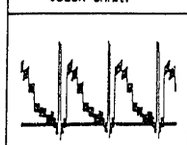
4-A IC201-4 540mVp-p 0.1V/20.0μ sec.cm COLOR CHART



5-A IC201-5 480mVp-p 0.1V/20.0μ sec.cm COLOR CHART

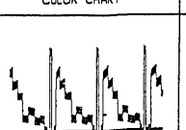


6-A IC201-6 520mVp-p 0.1V/20.0μ sec.cm COLOR CHART

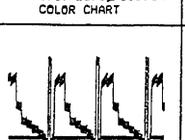


7-A IC201-7 540mVp-p 0.1V/20.0μ sec.cm COLOR CHART

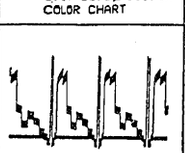
8-A IC201-9 560mVp-p 0.1V/20.0μ sec.cm COLOR CHART



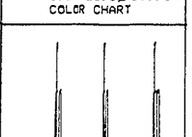
9-A IC201-9 560mVp-p 0.1V/20.0μ sec.cm COLOR CHART



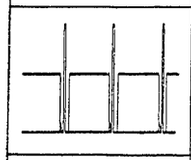
10-A IC201-10 560mVp-p 0.1V/20.0μ sec.cm COLOR CHART



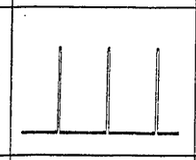
11-A IC202-2 3.1Vp-p 0.5V/20.0μ sec.cm COLOR CHART



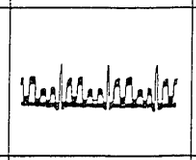
12-A IC202-5 3.1Vp-p 0.5V/20.0μ sec.cm COLOR CHART



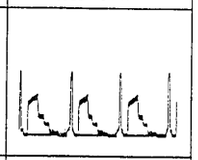
13-A IC202-9 400mVp-p 0.1V/20.0μ sec.cm COLOR CHART



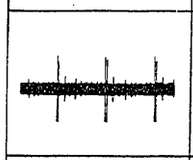
14-A IC202-10 330mVp-p 0.1V/20.0μ sec.cm COLOR CHART



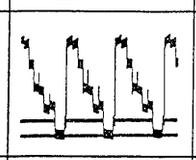
15-A IC202-11 330mVp-p 0.1V/20.0μ sec.cm COLOR CHART



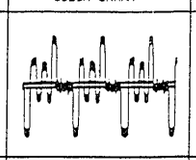
16-A IC202-13 190mVp-p 50mV/20.0μ sec.cm COLOR CHART



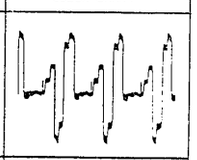
17-A IC202-17 560mVp-p 0.1V/20.0μ sec.cm COLOR CHART



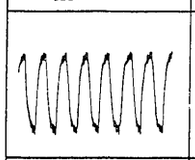
18-A IC202-18 250mVp-p 50mV/20.0μ sec.cm COLOR CHART



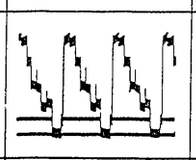
19-A IC202-19 300mVp-p 50mV/20.0μ sec.cm COLOR CHART



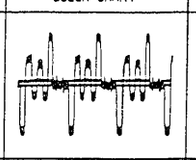
20-A IC202-22 450mVp-p 0.1V/200nsec.cm COLOR CHART



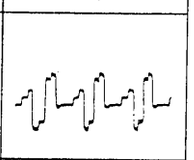
21-A IC203-4 560mVp-p 0.1V/20.0μ sec.cm COLOR CHART



22-A IC203-5 250mVp-p 50mV/20.0μ sec.cm COLOR CHART

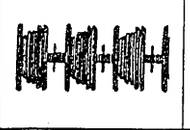


23-A IC203-6 350mVp-p 0.1V/20.0μ sec.cm COLOR CHART

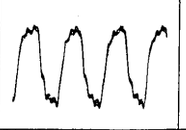


24-A IC203-9 940mVp-p 0.2V/20.0μ sec.cm COLOR CHART

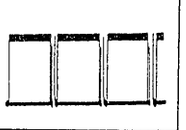
25-A IC203-11 400mVp-p 0.1V/20.0μ sec.cm COLOR CHART



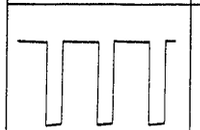
26-A IC203-13 470mVp-p 0.1V/100nsec.cm COLOR CHART



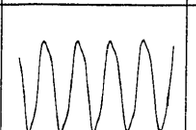
27-A IC203-15 420mVp-p 0.1V/20.0μ sec.cm COLOR CHART



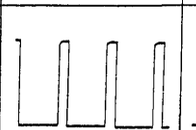
28-A IC203-16 3.7Vp-p 1V/20.0μ sec.cm COLOR CHART



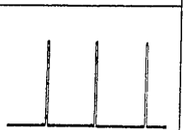
29-A IC203-21 5.4Vp-p 1V/50.0nsec.cm COLOR CHART



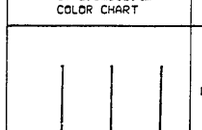
30-A IC203-22 5.2Vp-p 1V/20.0μ sec.cm COLOR CHART



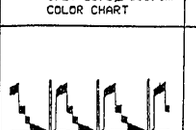
31-A IC203-23 5.3Vp-p 1V/20.0μ sec.cm COLOR CHART



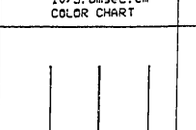
32-A IC203-24 5.8Vp-p 1V/5.0msec.cm COLOR CHART



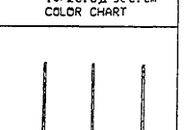
33-A TP201-1 710mVp-p 0.2V/20.0μ sec.cm COLOR CHART



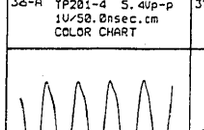
34-A TP201-2 5.0Vp-p 1V/5.0msec.cm COLOR CHART



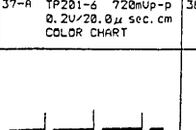
35-A TP201-3 5.4Vp-p 1V/20.0μ sec.cm COLOR CHART



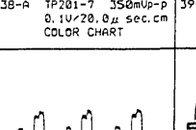
36-A TP201-4 5.4Vp-p 1V/50.0nsec.cm COLOR CHART



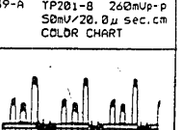
37-A TP201-6 720mVp-p 0.2V/20.0μ sec.cm COLOR CHART



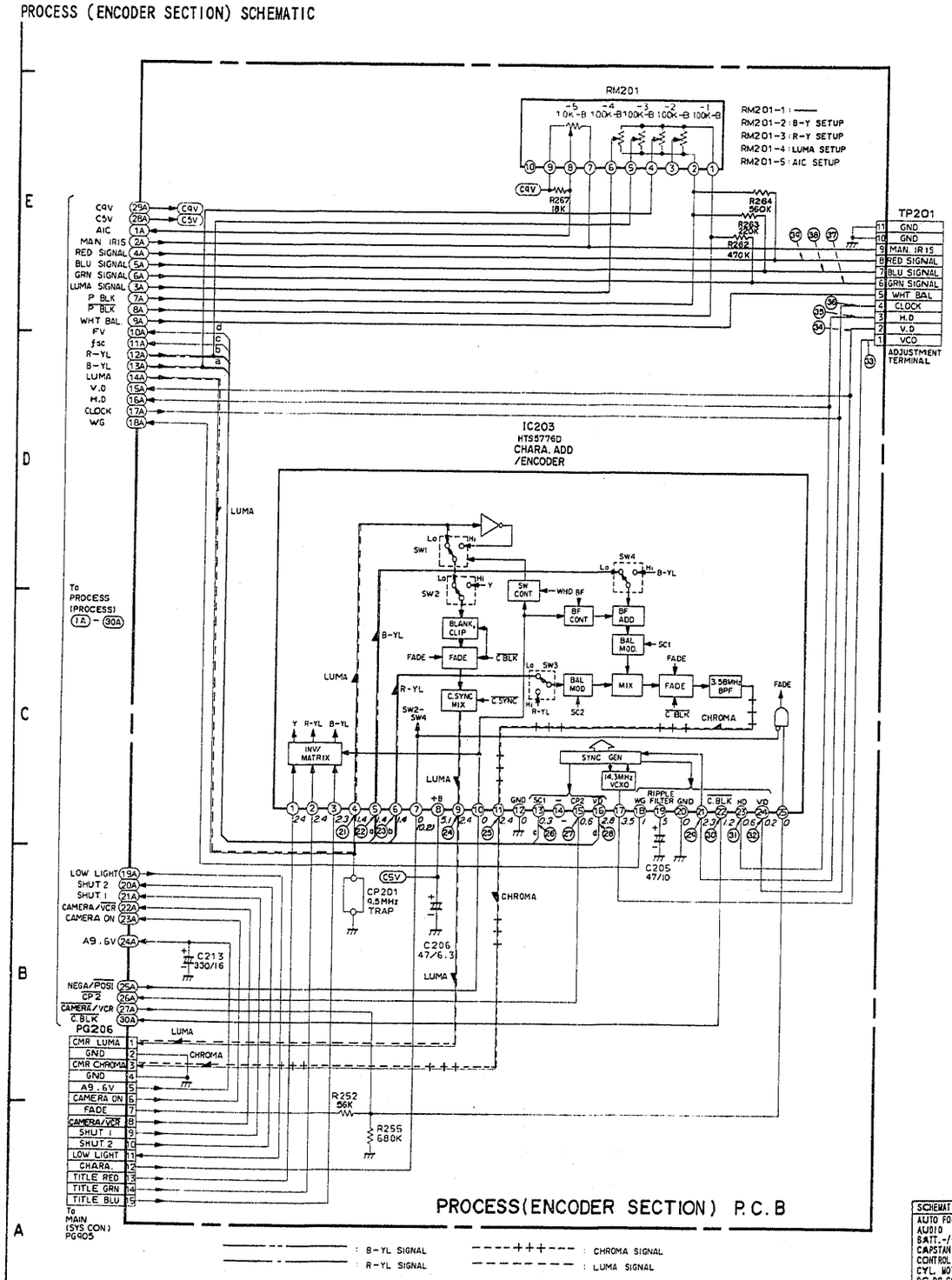
38-A TP201-7 350mVp-p 0.1V/20.0μ sec.cm COLOR CHART



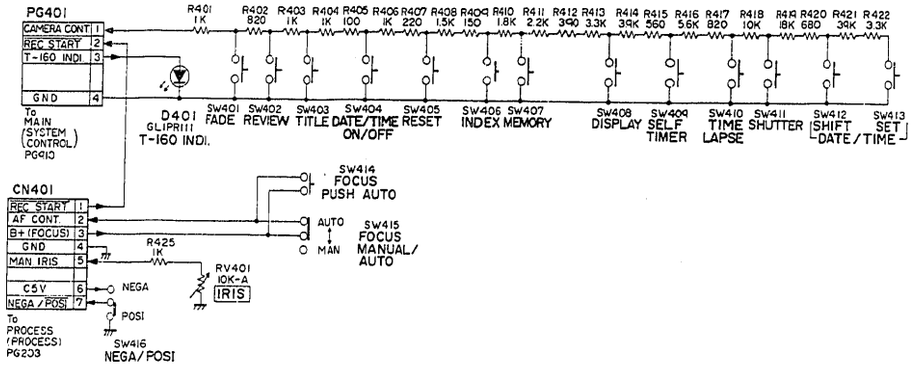
39-A TP201-8 260mVp-p 50mV/20.0μ sec.cm COLOR CHART



PROCESS (ENCODER SECTION) SCHEMATIC

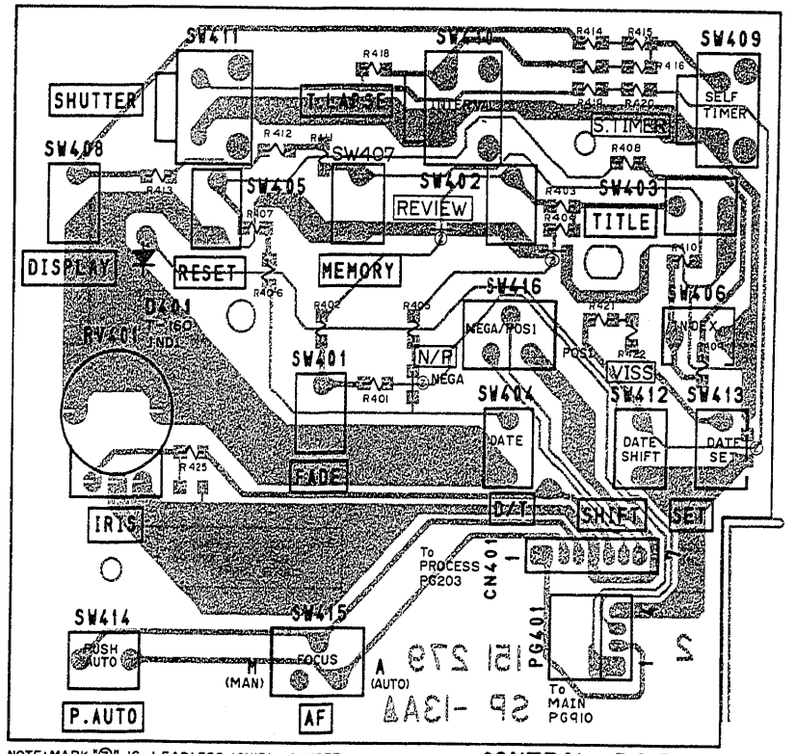


CONTROL SCHEMATIC



CONTROL P.C.B

CONTROL CIRCUIT BOARD

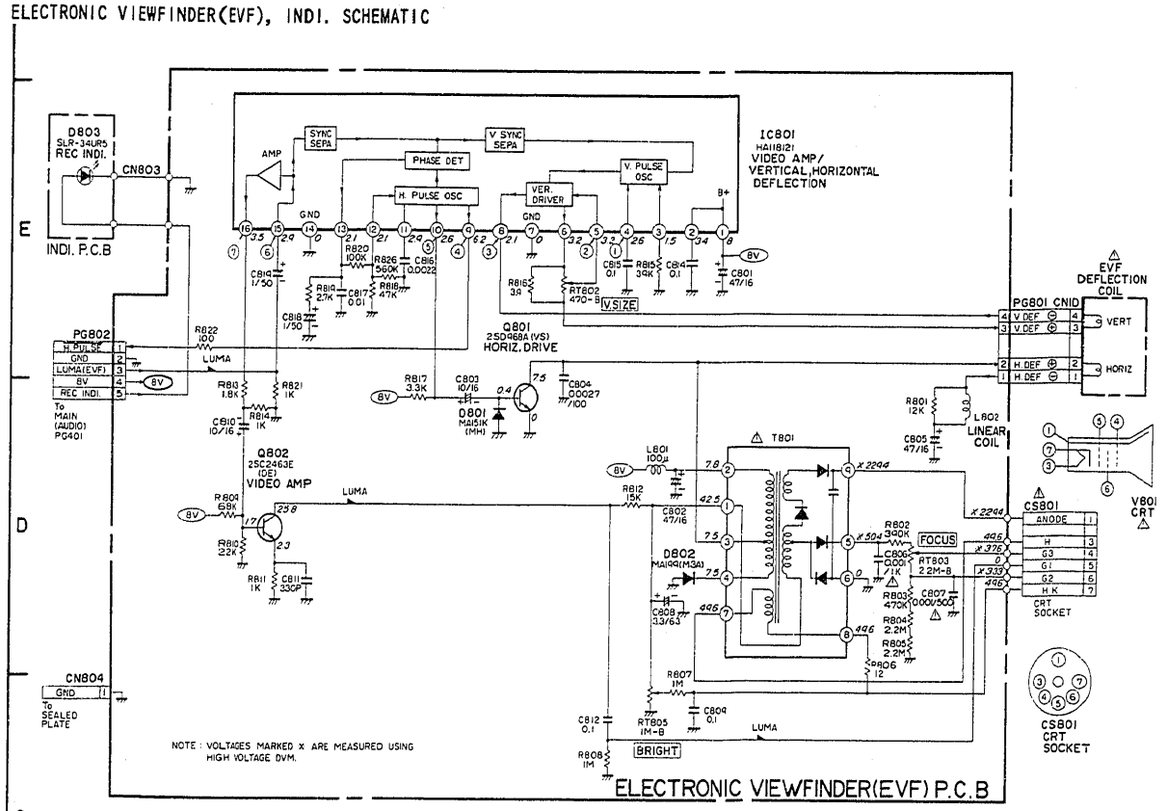


NOTE: MARK "Ⓩ" IS LEADLESS (CHIP) JUMPER.

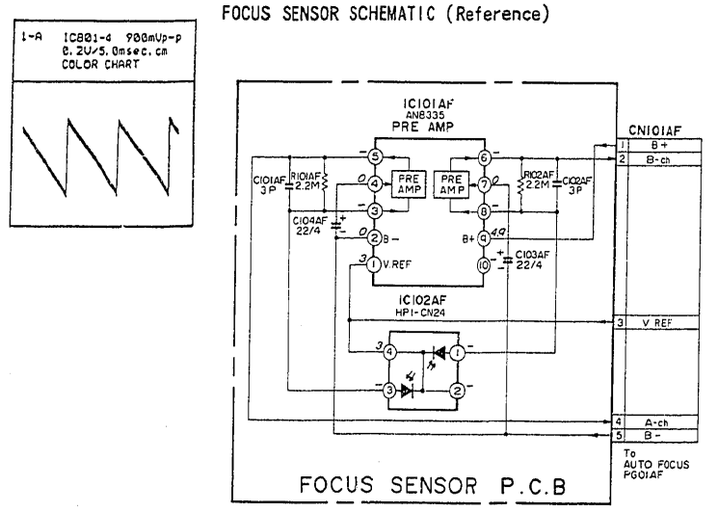
CONTROL P.C.B

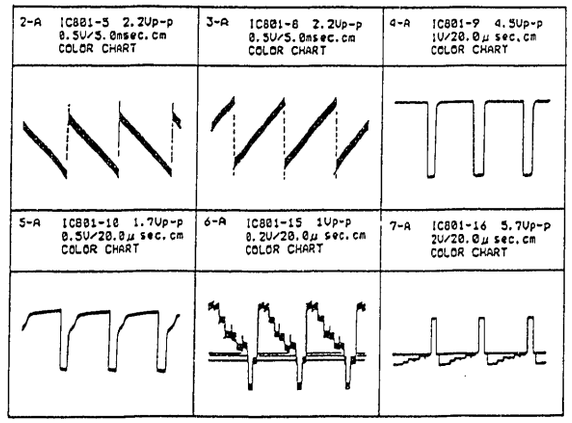
SCHEMATIC	PAGE	SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19	MIC	5-20
AUDIO	5-35	LUMINANCE/CHROMA	5-29
BATT.-/LIGHT - TERMINAL	5-19	PROCESS	5-11
CAPSTAN MOTOR	5-26	PROCESS [VM-1350A(C)]	5-43
CONTROL	5-16	PRE AMP	5-28
CYL. MOTOR DRIVE	5-26	SENSOR	5-7
DC-DC CONVERTER	5-27	SENSOR [VM-1350A(C)]	5-39
DC LIGHT CONT.	5-19	SYSTEM CONTROL	5-21
ENCODER	5-15	SWITCHING REGURATOR	5-25
ENCODER [VM-1350A(C)]	5-47	SERVO	5-23
ELECTRONIC VIEWFINDER, INDI.	5-17	TROUBLE SENSOR	5-37
FOCUS SENSOR	5-18		

ELECTRONIC VIEWFINDER(EVF), INDI. SCHEMATIC



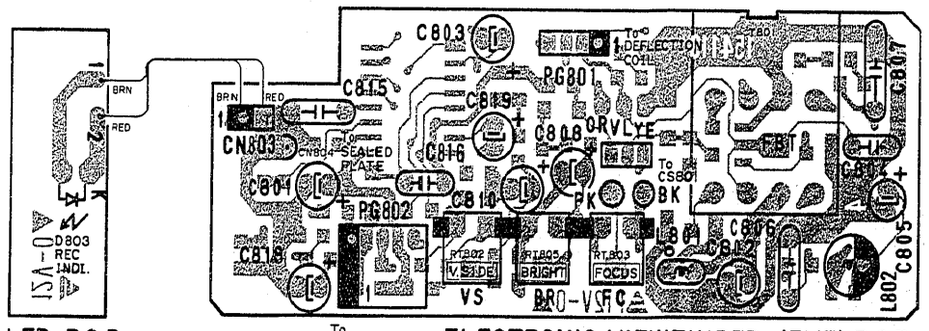
FOCUS SENSOR SCHEMATIC (Reference)

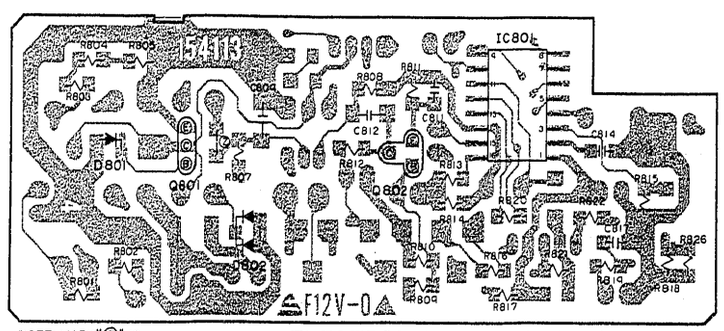




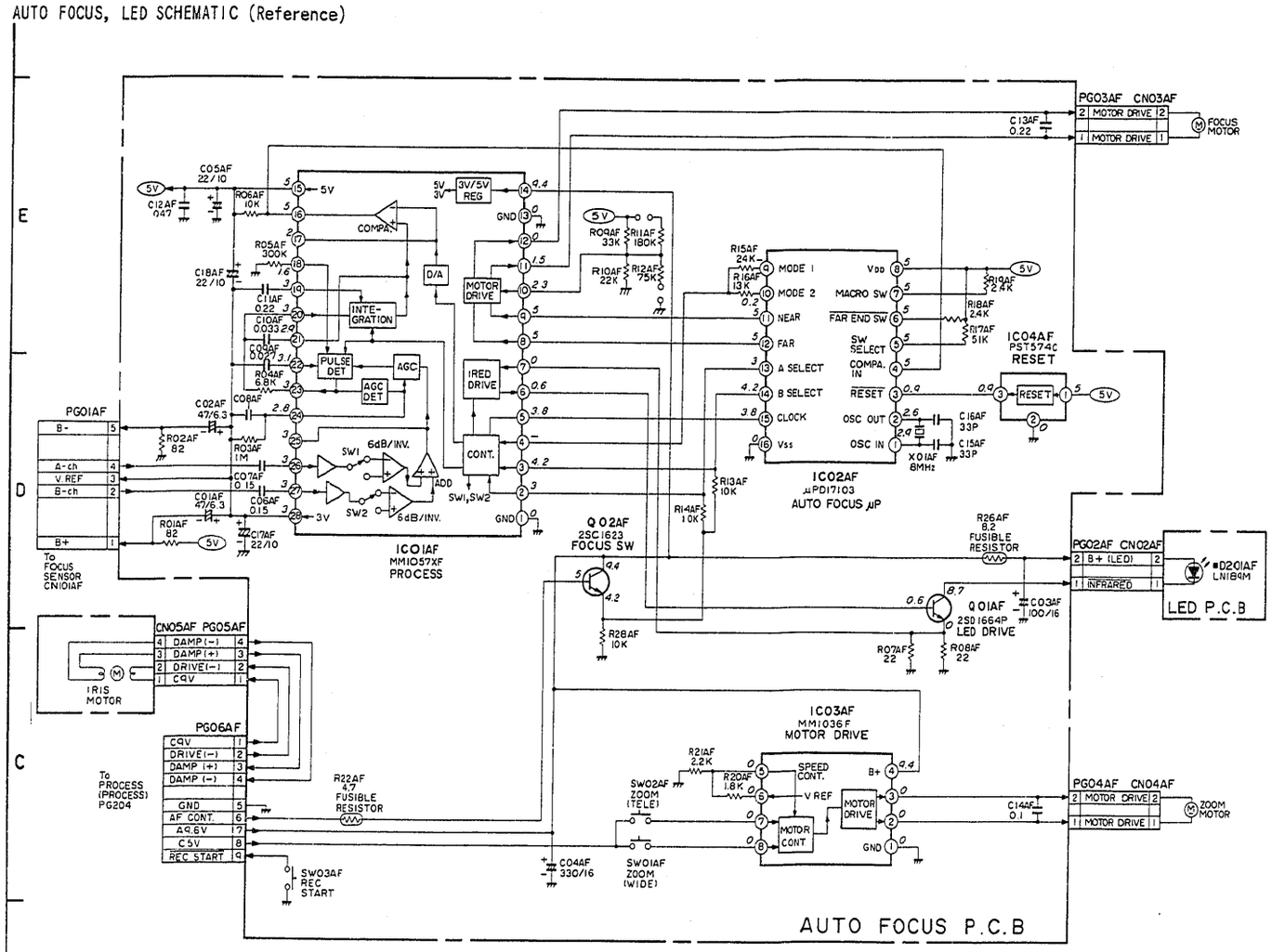
SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19
AUDIO	5-35
BATT.-/LIGHT - TERMINAL	5-19
CAPSTAN MOTOR	5-26
CONTROL	5-16
CYL. MOTOR DRIVE	5-26
DC-DC CONVERTER	5-27
DC LIGHT CONT.	5-18
ENCODER	5-15
ENCODER [VM-1350A(C)]	5-47
ELECTRONIC VIEWFINDER, INDI.	5-17
FOCUS SENSOR	5-18
MIC	5-20
LUMINANCE/CHROMA	5-29
PROCESS	5-11
PROCESS [VM-1350A(C)]	5-43
PRE AMP	5-28
SENSOR	5-7
SENSOR [VM-1350A(C)]	5-39
SYSTEM CONTROL	5-21
SWITCHING REGURATOR	5-25
SERVO	5-23
TROUBLE SENSOR	5-37

ELECTRONIC VIEWFINDER(EVF), INDI. CIRCUIT BOARD

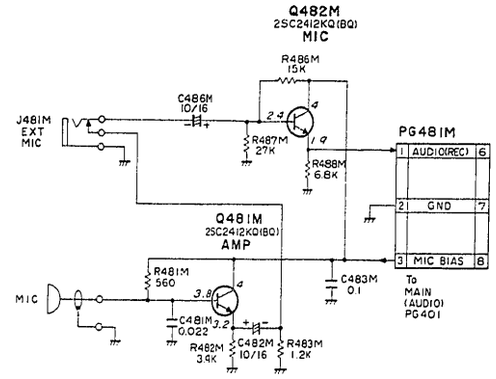




AUTO FOCUS, LED SCHEMATIC (Reference)



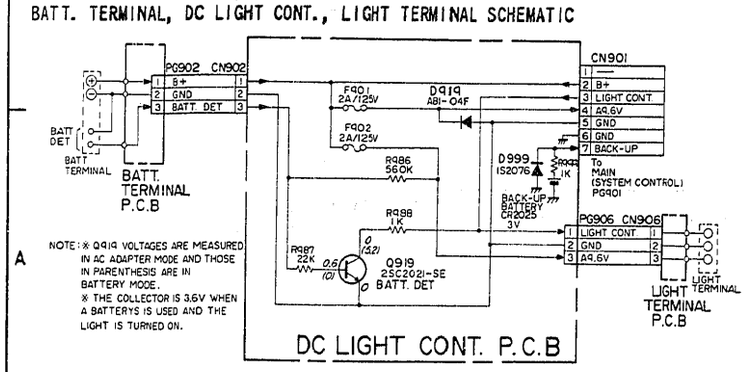
MIC SCHEMATIC (Reference)



MIC P.C.B

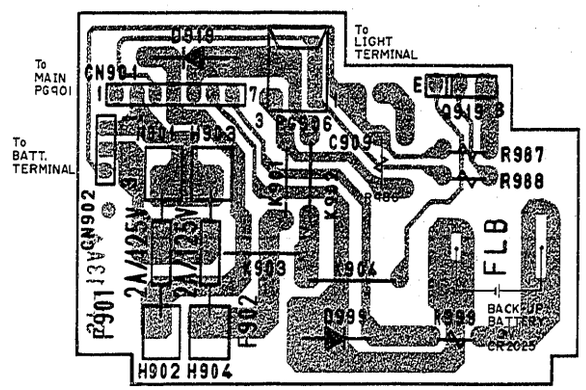
SCHEMATIC	PAGE	SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19	MIC	5-20
AUDIO	5-35	LUMINANCE/CHROMA	5-29
BATT.-/LIGHT - TERMINAL	5-19	PROCESS	5-11
CAPSTAN MOTOR	5-26	PROCESS [VM-1350A(C)]	5-43
CONTROL	5-16	PRE AMP	5-28
CYL. MOTOR DRIVE	5-26	SENSOR	5-7
DC-DC CONVERTER	5-27	SENSOR [VM-1350A(C)]	5-39
DC LIGHT CONT.	5-19	SYSTEM CONTROL	5-21
ENCODER	5-15	SWITCHING REGURATOR	5-25
ENCODER [VM-1350A(C)]	5-47	SERVO	5-23
ELECTRONIC VIEWFINDER, INDI.	5-17	TROUBLE SENSOR	5-37
FOCUS SENSOR	5-18		

BATT. TERMINAL, DC LIGHT CONT., LIGHT TERMINAL SCHEMATIC

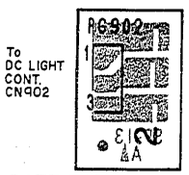


NOTE: ※ Q919 VOLTAGES ARE MEASURED IN AC ADAPTER MODE AND THOSE IN PARENTHESIS ARE IN BATTERY MODE.
※ THE COLLECTOR IS 3.6V WHEN A BATTERYS IS USED AND THE LIGHT IS TURNED ON.

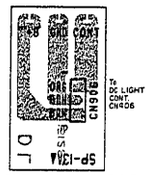
DC LIGHT CONT. CIRCUIT BOARD



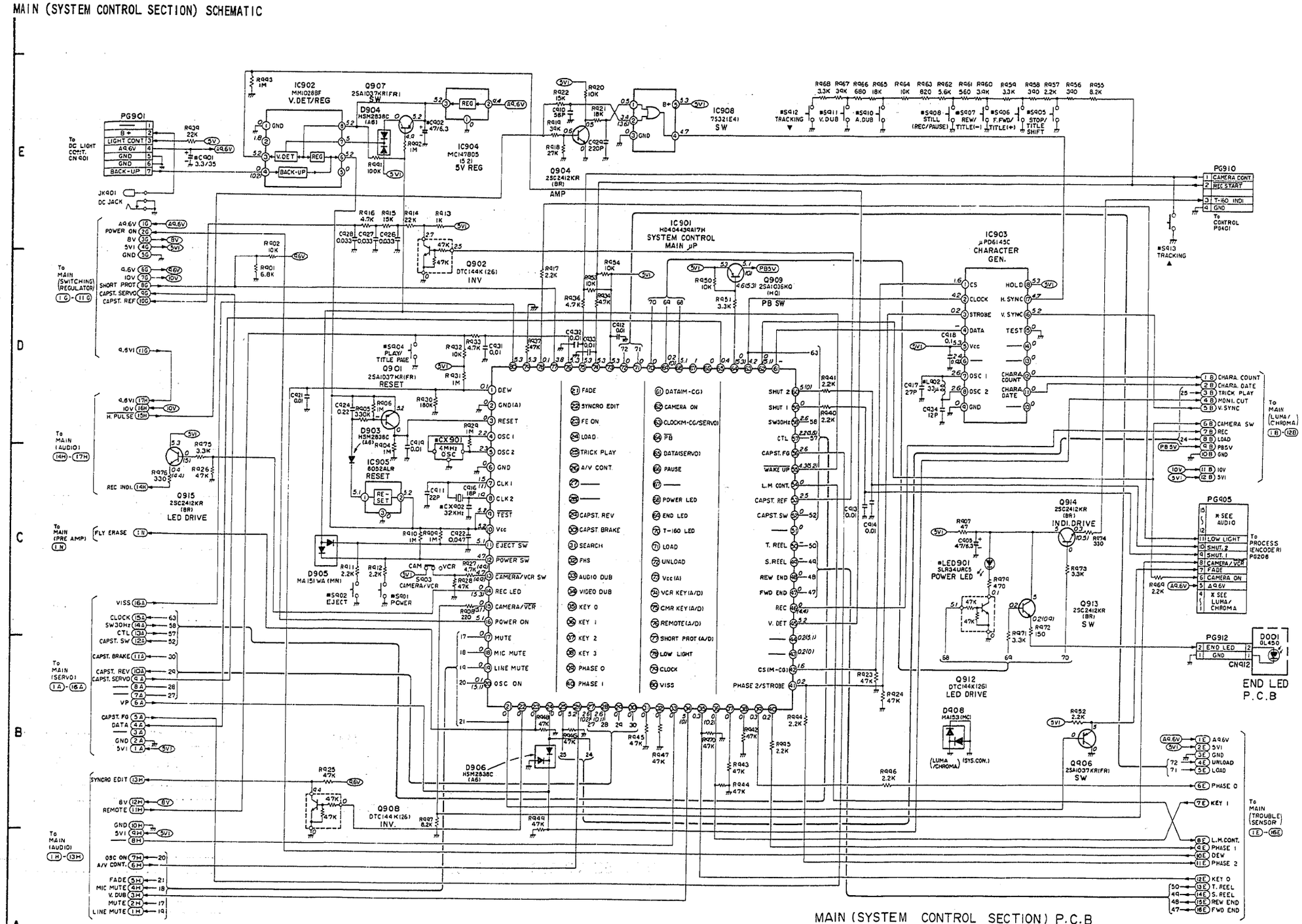
BATT. TERMINAL CIRCUIT BOARD



LIGHT TERMINAL CIRCUIT BOARD



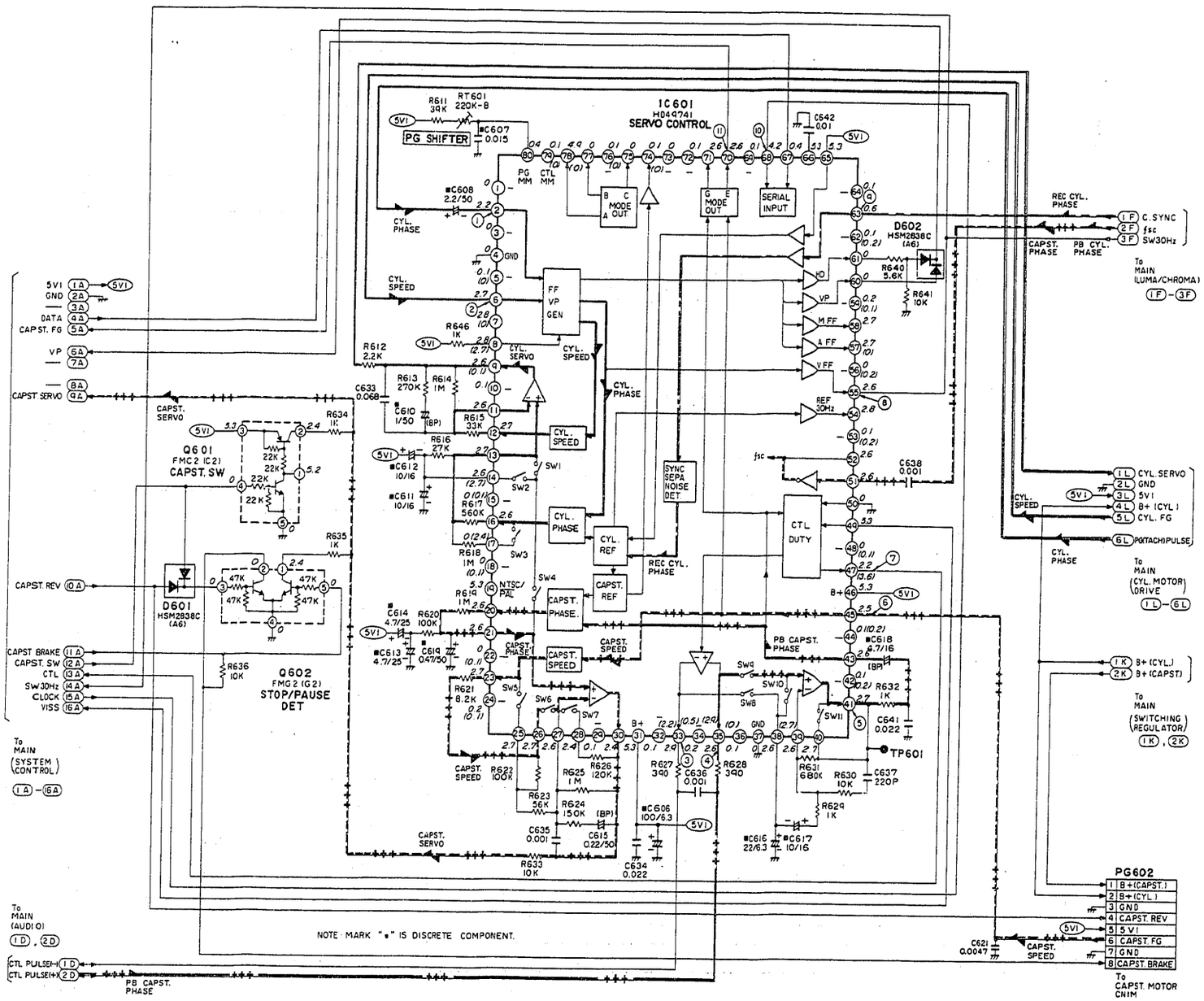
MAIN (SYSTEM CONTROL SECTION) SCHEMATIC



SYSTEM CONTROL 5-21

5-22 SYSTEM CONTROL

MAIN (SERVO SECTION) SCHEMATIC

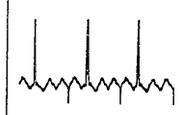


MAIN (SERVO SECTION) P.C.B

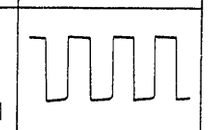
: REC/PB CYL. SIGNAL — : REC CYL. SIGNAL — : REC/PB CAPST SIGNAL — : PB CAPST SIGNAL

SCHEMATIC	PAGE	SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19	MIC	5-20
AUDIO	5-35	LUMINANCE/CHROMA	5-29
BATT.-/LIGHT - TERMINAL	5-19	PROCESS	5-11
CAPSTAN MOTOR	5-28	PROCESS [VM-1350A(C)]	5-43
CONTROL	5-16	PRE AMP	5-28
CYL. MOTOR DRIVE	5-28	SENSOR	5-7
DC-DC CONVERTER	5-27	SENSOR [VM-1350A(C)]	5-39
DC LIGHT CONT.	5-19	SYSTEM CONTROL	5-21
ENCODER	5-15	SWITCHING REGURATOR	5-25
ENCODER [VM-1350A(C)]	5-47	SERVO	5-23
ELECTRONIC VIEWFINDER, INDI.	5-17	TROUBLE SENSOR	5-37
FOCUS SENSOR	5-18		

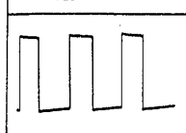
1-A IC601-2 2.4Vp-p 0.5V/10.0msec.cm REC/PLAY



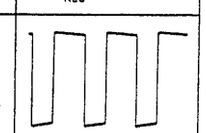
2-A IC601-6 3.7Vp-p 1V/1.0msec.cm REC/PLAY



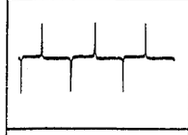
3-A IC601-33 4.4Vp-p 1V/10.0msec.cm REC



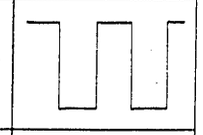
4-A IC601-35 2.7Vp-p 0.5V/10.0msec.cm REC



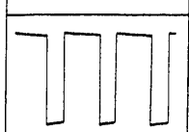
5-B IC601-41 2.0Vp-p 0.5V/10.0msec.cm PLAY



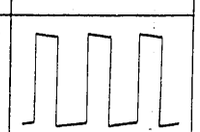
6-A IC601-45 5.0Vp-p 1V/100μsec.cm REC/PLAY



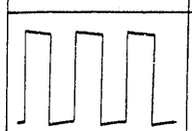
7-A IC601-47 5.3Vp-p 1V/10.0msec.cm REC



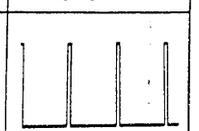
7-B IC601-47 5.3Vp-p 1V/10.0msec.cm PLAY



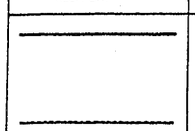
8-A IC601-55 5.3Vp-p 1V/10.0msec.cm REC/PLAY



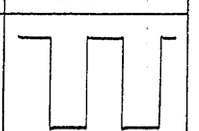
9-A IC601-63 4.8Vp-p 1V/20.0μsec.cm REC/PLAY



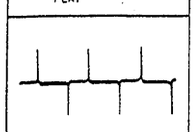
10-A IC601-68 5.0Vp-p 1V/5.0msec.cm REC/PLAY



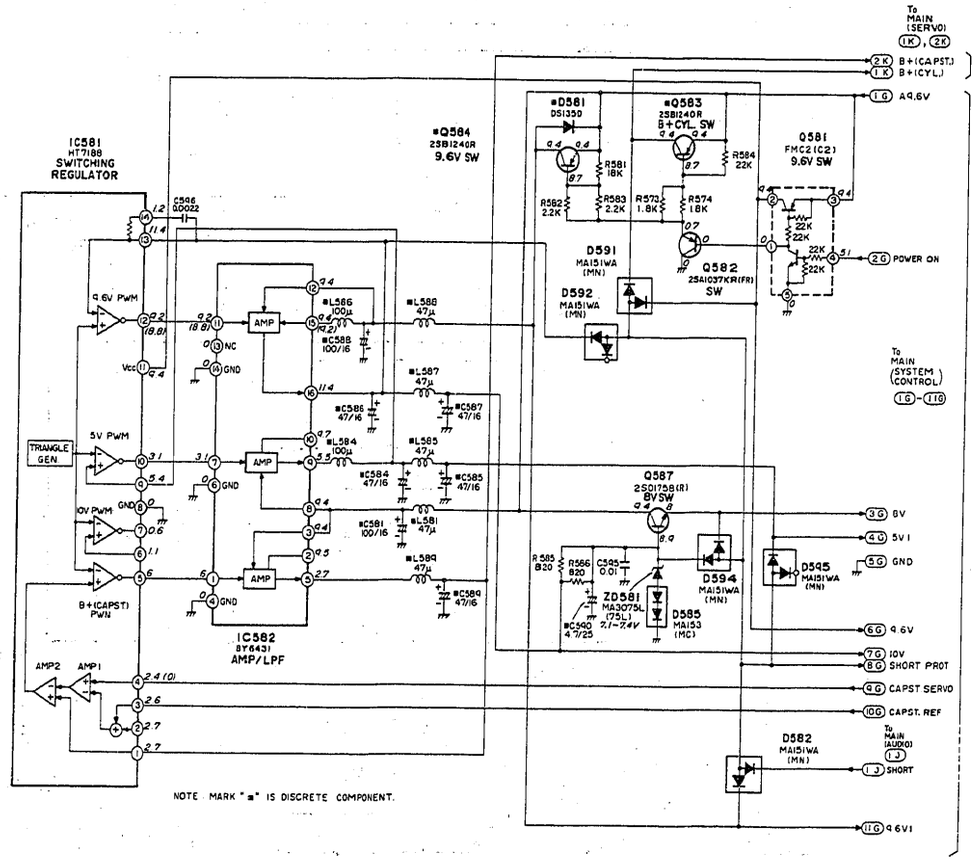
11-A IC601-70 5.2Vp-p 1V/100μsec.cm REC/PLAY



12-B TP603 2.0Vp-p 0.5V/10.0msec.cm PLAY



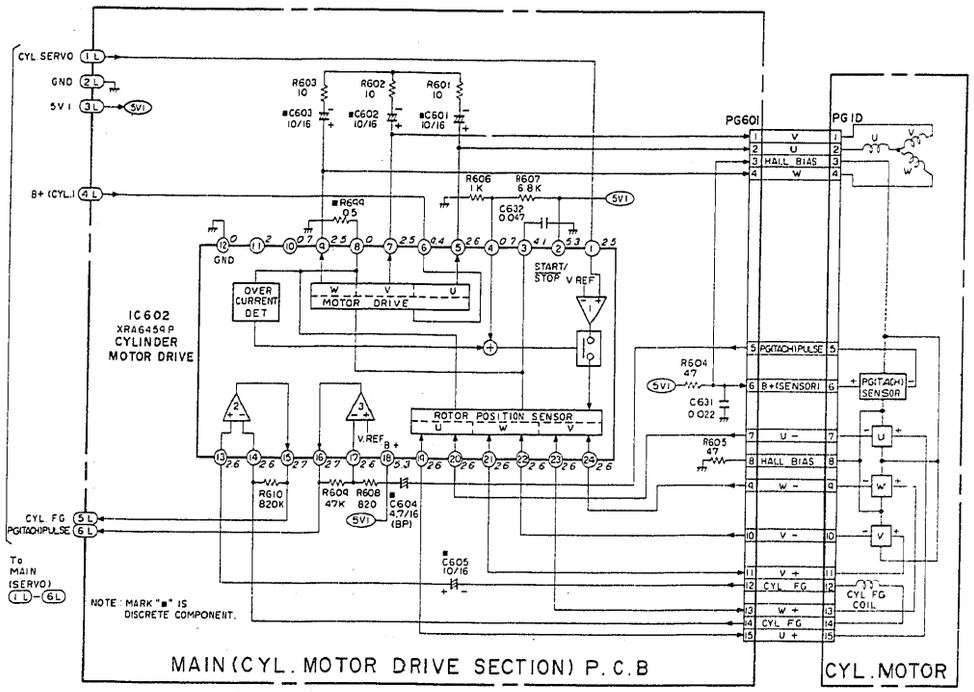
MAIN (SWITCHING REGURATOR SECTION) SCHEMATIC



MAIN (SWITCHING REGULATOR SECTION) P.C.B

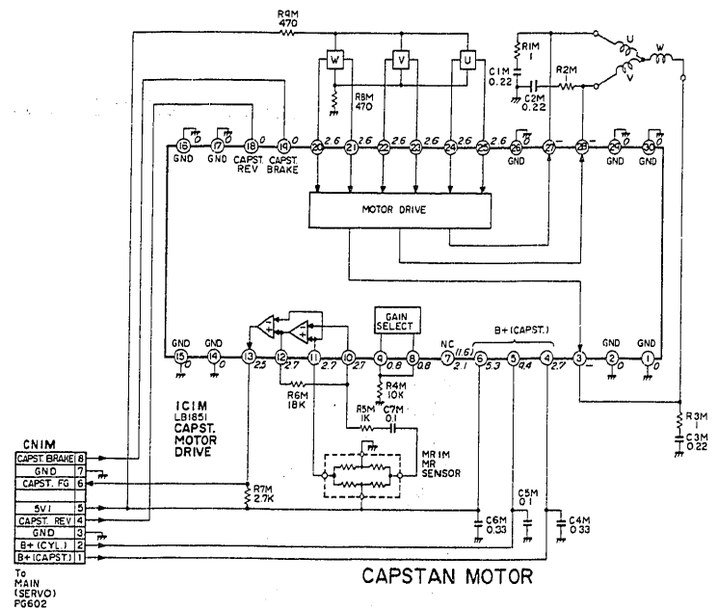
SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19
AUDIO	5-15
BATT.-/LIGHT - TERMINAL	5-19
CAPSTAN MOTOR	5-26
CONTROL	5-16
CYL. MOTOR DRIVE	5-26
DC-DC CONVERTER	5-27
DC LIGHT CONT.	5-19
ENCODER	5-15
ENCODER [VM-1350A(C)]	5-47
ELECTRONIC VIEWFINDER, INDI.	5-17
FOCUS SENSOR	5-18
MIC	5-20
LUMINANCE/CHROMA	5-29
PROCESS	5-11
PROCESS [VM-1350A(C)]	5-43
PRE AMP	5-28
SENSOR	5-7
SENSOR [VM-1350A(C)]	5-38
SYSTEM CONTROL	5-21
SWITCHING REGURATOR	5-25
SERVO	5-23
TROUBLE SENSOR	5-37

MAIN (CYL. MOTOR DRIVE SECTION) SCHEMATIC

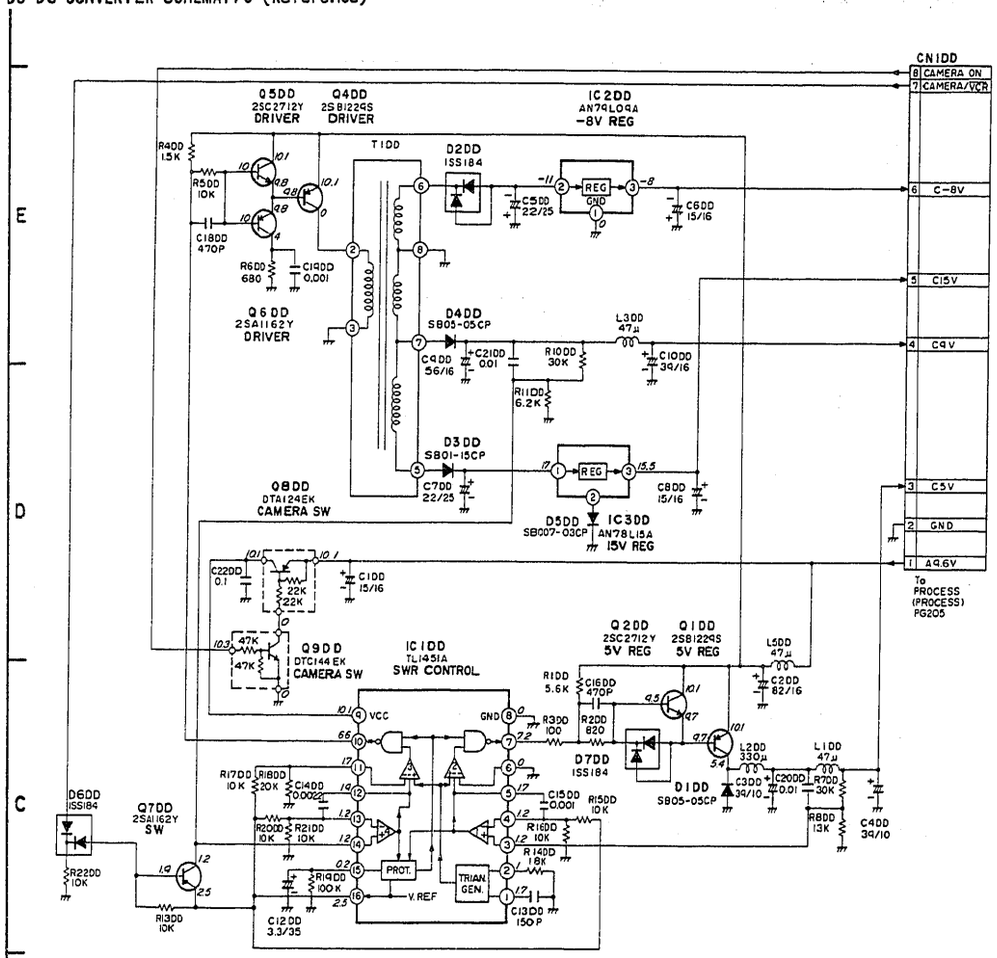


MAIN (CYL. MOTOR DRIVE SECTION) P.C.B

CAPSTAN MOTOR SCHEMATIC (Reference)



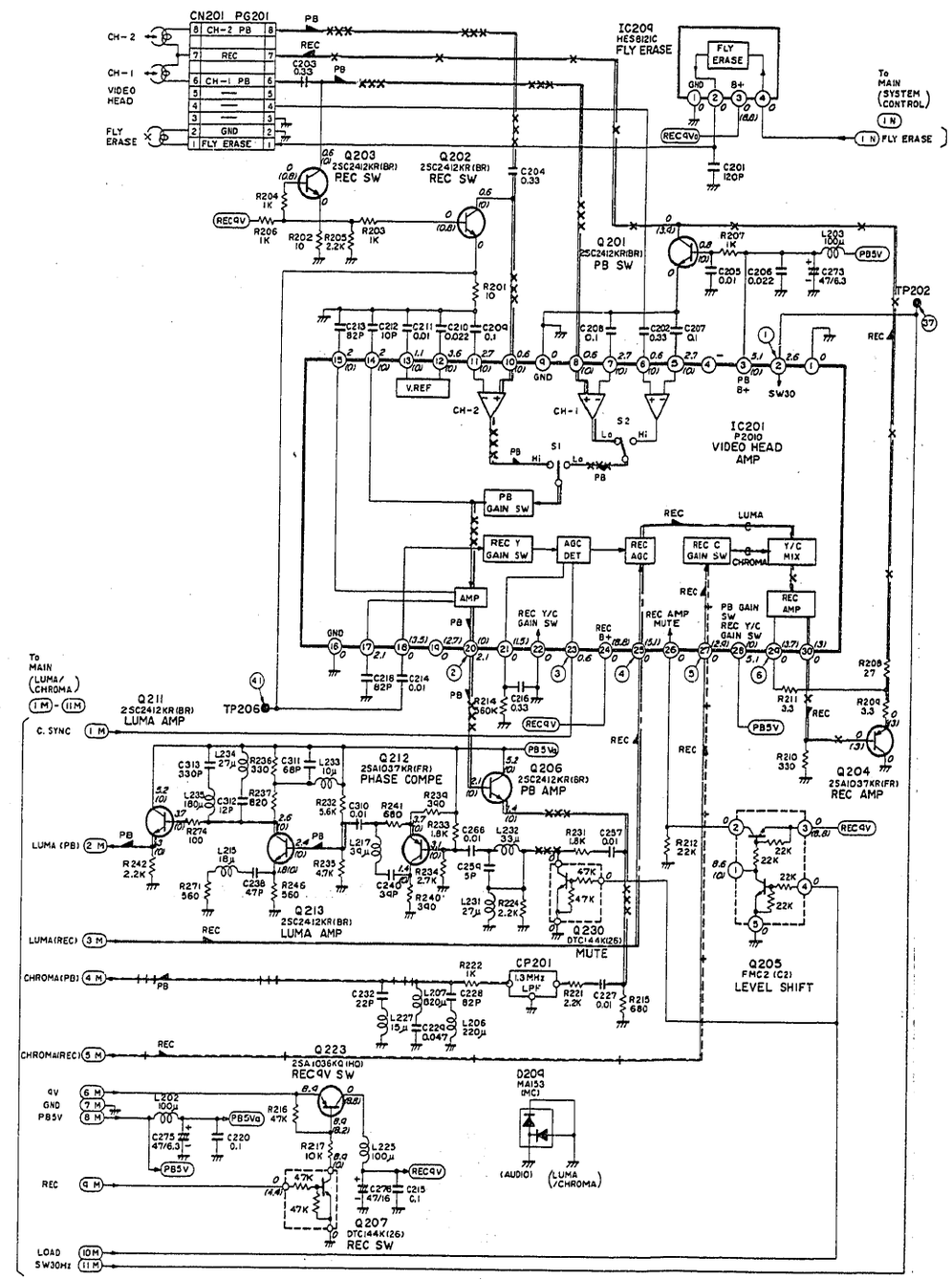
DC-DC CONVERTER SCHEMATIC (Reference)



DC-DC CONVERTER P. C. B

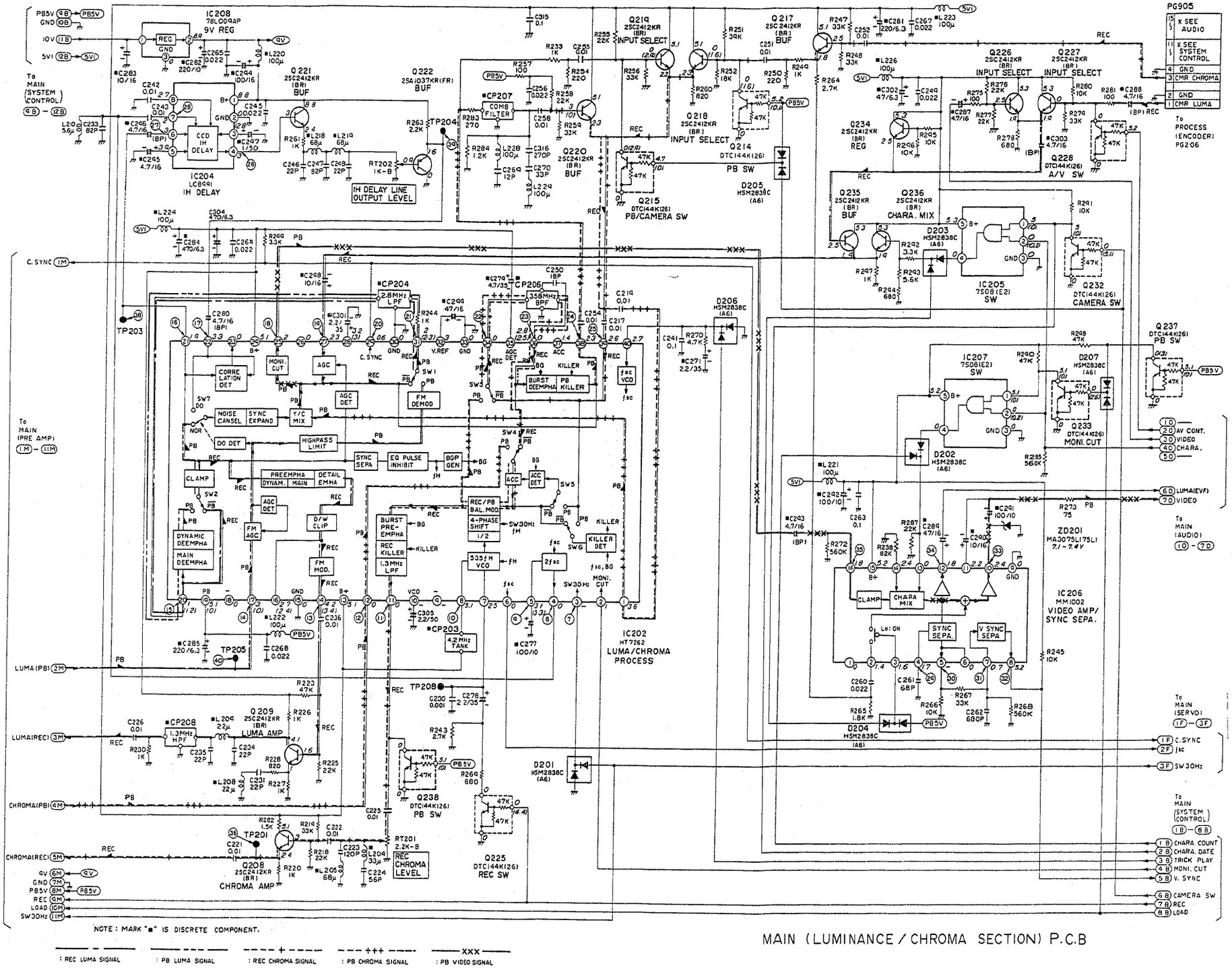
SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19
AUDIO	5-35
BATT. -/LIGHT - TERMINAL	5-19
CAPSTAN MOTOR	5-26
CONTROL	5-16
CYL. MOTOR DRIVE	5-26
DC-DC CONVERTER	5-27
DC LIGHT CONT.	5-19
ENCODER	5-15
ENCODER [VM-1350A(C)]	5-47
ELECTRONIC VIEWFINDER, INDI.	5-17
FOCUS SENSOR	5-18
MIC	5-20
LUMINANCE/CHROMA	5-29
PROCESS	5-11
PROCESS [VM-1350A(C)]	5-43
PRE AMP	5-28
SENSOR	5-7
SENSOR [VM-1350A(C)]	5-39
SYSTEM CONTROL	5-21
SWITCHING REGURATOR	5-25
SERVO	5-23
TROUBLE SENSOR	5-37

MAIN (PRE AMP SECTION) SCHEMATIC



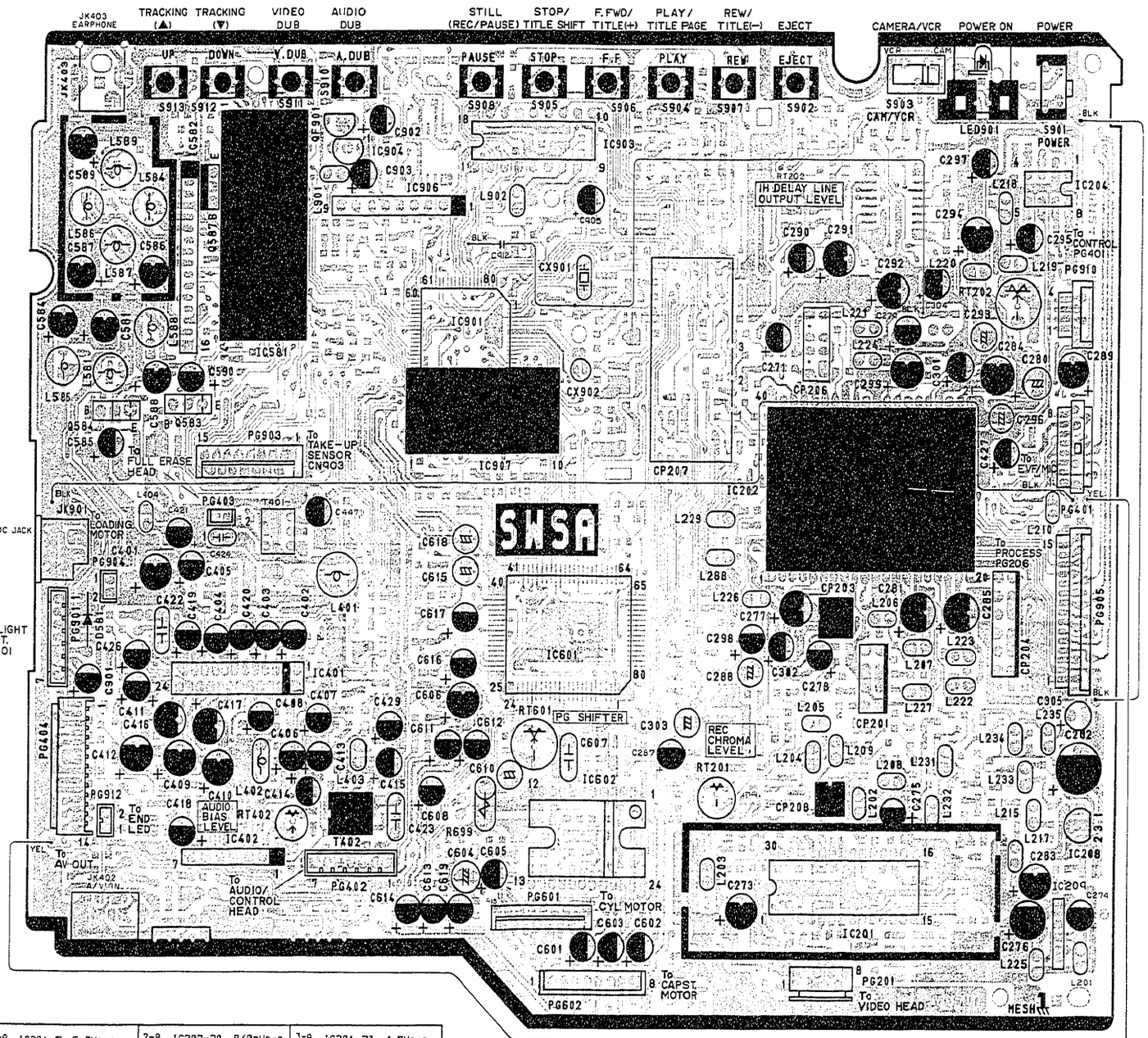
MAIN (PRE AMP SECTION) P.C.B

MAIN (LUMINANCE/CHROMA SECTION) SCHEMATIC



MAIN (LUMINANCE / CHROMA SECTION) P.C.B

MAIN CIRCUIT BOARD - COMPONENT SIDE -


JK403 EARPHONE
TRACKING (▲)
TRACKING (▼)
VIDEO DUB
AUDIO DUB
STILL (REC/PAUSE)
STOP/ TITLE SHIFT
F.FWD/ TITLE(+)
PLAY/ TITLE PAGE
REW/ TITLE(−)
EJECT
CAMERA/VCR
POWER ON
POWER
UP
DOWN
V.DUB
A.DUB
PAUSE
STOP
F.F
PLAY
REW
EJECT
VCR
CAM
S903 CAM/VCR
LED901
S901 POWER
IH DELAY LINE OUTPUT LEVEL
RT202
To CONTROL PG401
PG910
To FULL ERASE HEAD
PG903
To TAKE-UP SENSOR CN903
SWSA
DC JACK
JK901
To LOADING MOTOR
PG904
To PROCESS PG206
To EVF/MIC
To DC LIGHT CONT. CN901
PG912
2 END LED
AUDIO BIAS LEVEL
RT402
To AV-OUT
To AUDIO/ CONTROL HEAD
PG402
PG601
To CYL MOTOR
PG602
To CAPST. MOTOR
PG201
To VIDEO HEAD
MESH
REC CHROMA LEVEL
RT201
PG SHIFTER
RT601
IC901
IC903
IC906
IC581
IC601
IC602
IC401
IC402
IC201
IC202
IC204
IC205
IC206
IC207
IC208
IC209
CP206
CP207
CP208
CP201
CP203
CX901
CX902
L589
L584
L586
L587
L585
L588
L581
L582
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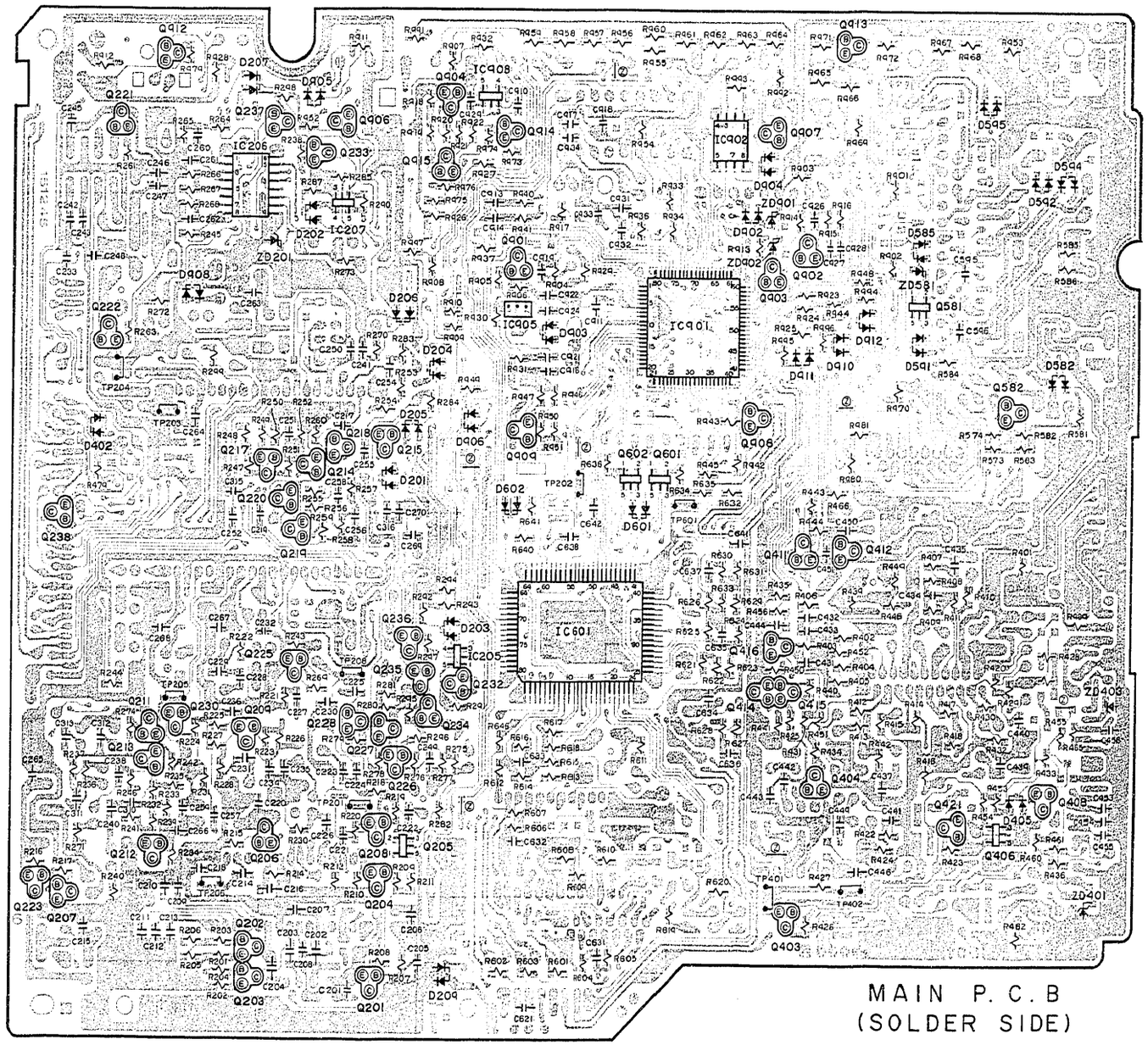
C437
C438
C439
C440

MAIN CIRCUIT BOARD - SOLDER SIDE -

	22-B IC202-34 300mVp-p 0.1V/5.0msec.cm PLAY	23-A IC202-36 130mVp-p 50mV/5.0msec.cm REC/PLAY	24-A IC202-38 820mVp-p 0.2V/20.0μ sec.cm REC
E			
	24-B IC202-38 650mVp-p 0.2V/20.0μ sec.cm PLAY	25-A IC202-39 180mVp-p 50mV/20.0μ sec.cm REC	25-B IC202-39 180mVp-p 50mV/5.0msec.cm PLAY
	26-A IC204-4 1.2Vp-p 0.2V/20.0μ sec.cm REC/PLAY	27-A IC204-6 400mVp-p 0.1V/20.0μ sec.cm REC/PLAY	28-A IC204-7 180mVp-p 50mV/100nsec.cm REC/PLAY
D			
	29-A IC206-4 880mVp-p 0.2V/20.0μ sec.cm REC/PLAY	30-A IC206-5 4.4Vp-p 1V/20.0μ sec.cm REC/PLAY	31-A IC206-7 3.4Vp-p 1V/5.0msec.cm REC/PLAY
C			
	32-A IC206-8 5.3Vp-p 1V/5.0msec.cm REC/PLAY	33-A IC206-10 1.8Vp-p 0.5V/20.0μ sec.cm REC/PLAY	34-A IC206-12 900mVp-p 0.2V/20.0μ sec.cm REC/PLAY
B			
	35-A IC206-16 900mVp-p 0.2V/20.0μ sec.cm REC/PLAY	36-A TP201 150mVp-p 50mV/5.0msec.cm REC	37-A TP202 5.0Vp-p 1V/5.0msec.cm REC/PLAY
	38-A TP203 400mVp-p 0.1V/20.0μ sec.cm REC/PLAY	39-A TP204 400mVp-p 0.1V/20.0μ sec.cm REC/PLAY	40-B TP205 280mVp-p 0.1V/5.0msec.cm PLAY
A			



MAIN P. C. B
(SOLDER SIDE)

NOTE : MARK "Ⓩ" IS LEADLESS (CHIP) JUMPER.

: Soldered side

41-A TP206 160mVp-p 50mV/5.0msec.cm REC

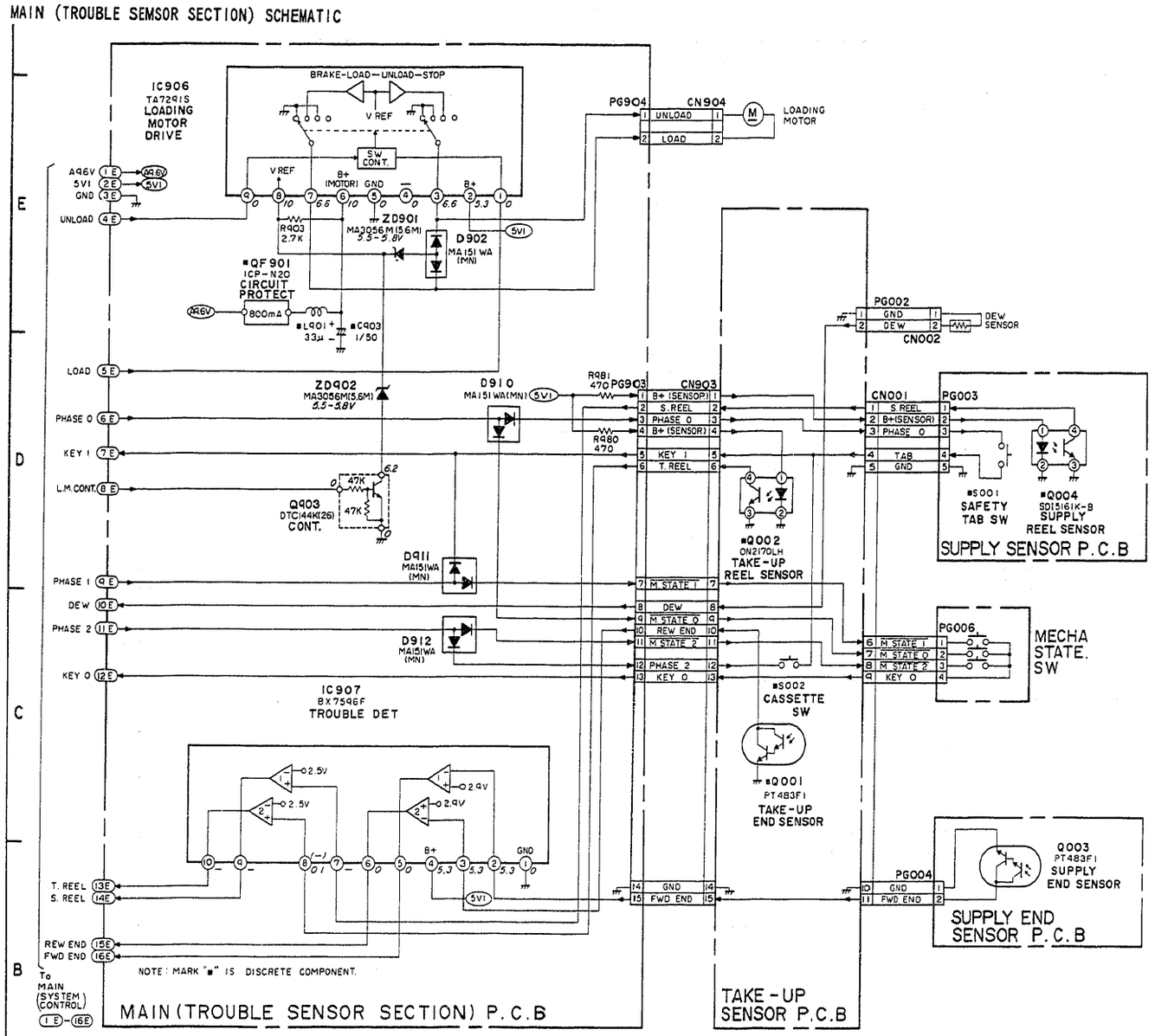
1 2 3 4 5 6 7 8

MAIN (AUDIO SECTION) SCHEMATIC

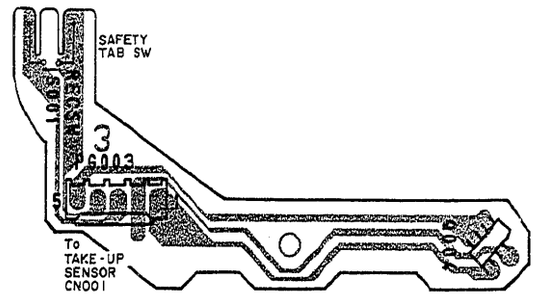
SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19
AUDIO	5-35
BATT.-/LIGHT - TERMINAL	5-19
CAPSTAN MOTOR	5-26
CONTROL	5-16
CYL. MOTOR DRIVE	5-26
DC-DC CONVERTER	5-17
DC LIGHT CONT.	5-19
ENCODER	5-15
ENCODER [VM-1350A(C)]	5-47
ELECTRONIC VIEWFINDER, INDI.	5-17
FOCUS SENSOR	5-18
MIC	5-20
LUMINANCE/CHROMA	5-29
PROCESS	5-11
PROCESS [VM-1350A(C)]	5-43
PRE AMP	5-28
SENSOR	5-7
SENSOR [VM-1350A(C)]	5-39
SYSTEM CONTROL	5-21
SWITCHING REGURATOR	5-25
SERVO	5-23
TROUBLE SENSOR	5-37

MAIN (AUDIO SECTION) P.C.B

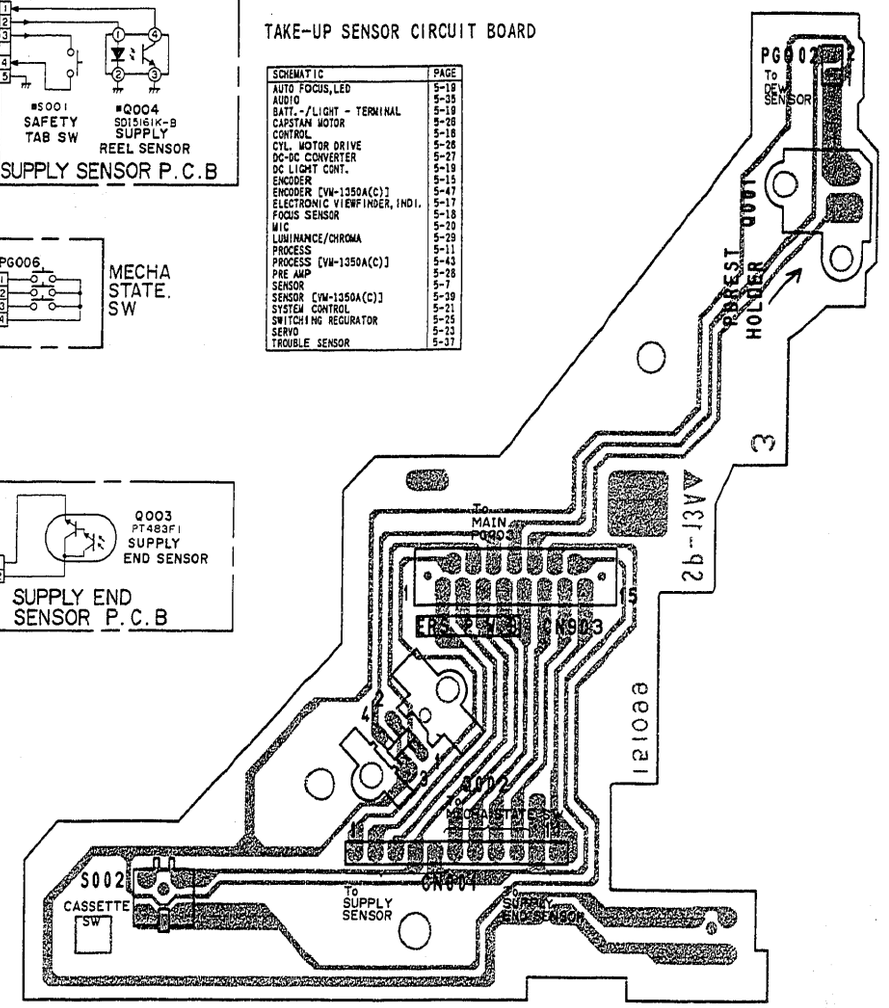
MAIN (TROUBLE SEMSOR SECTION) SCHEMATIC



SUPPLY SENSOR CIRCUIT BOARD

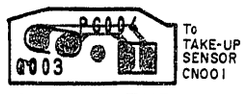


TAKE-UP SENSOR CIRCUIT BOARD



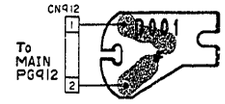
SCHEMATIC	PAGE
AUTO FOCUS,LED	5-19
AUDIO	5-35
BATT.-/LIGHT - TERMINAL	5-19
CAPSTAN MOTOR	5-26
CONTROL	5-18
CYL. MOTOR DRIVE	5-26
DC-DC CONVERTER	5-27
DC LIGHT CONT.	5-19
ENCODER	5-15
ENCODER [VM-1350A(C)]	5-47
ELECTRONIC VIEWFINDER, INDI.	5-17
FOCUS SENSOR	5-18
MIC	5-20
LUMINANCE/CHROMA	5-29
PROCESS	5-11
PROCESS [VM-1350A(C)]	5-43
PRE AMP	5-28
SENSOR	5-7
SENSOR [VM-1350A(C)]	5-39
SYSTEM CONTROL	5-21
SWITCHING REGURATOR	5-25
SERVO	5-23
TROUBLE SENSOR	5-37

SUPPLY END SEMSOR CIRCUIT BOARD



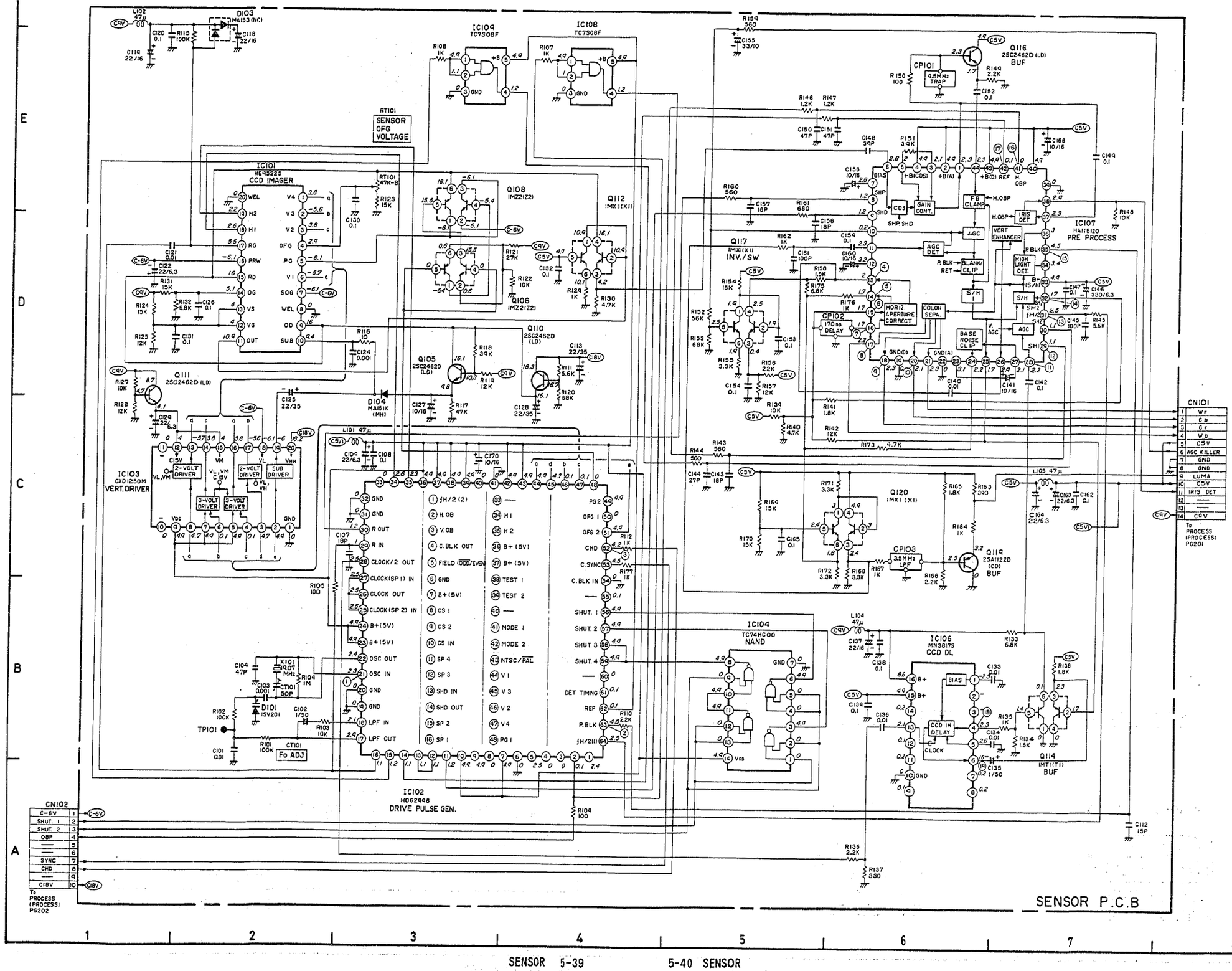
SUPPLY END SENSOR P.C.B

END LED CIRCUIT BOARD

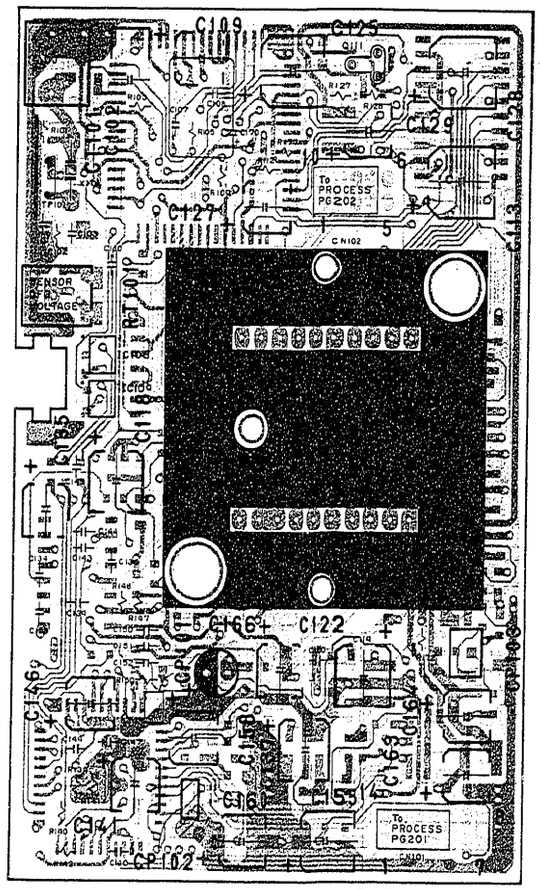


END LED P.C.B

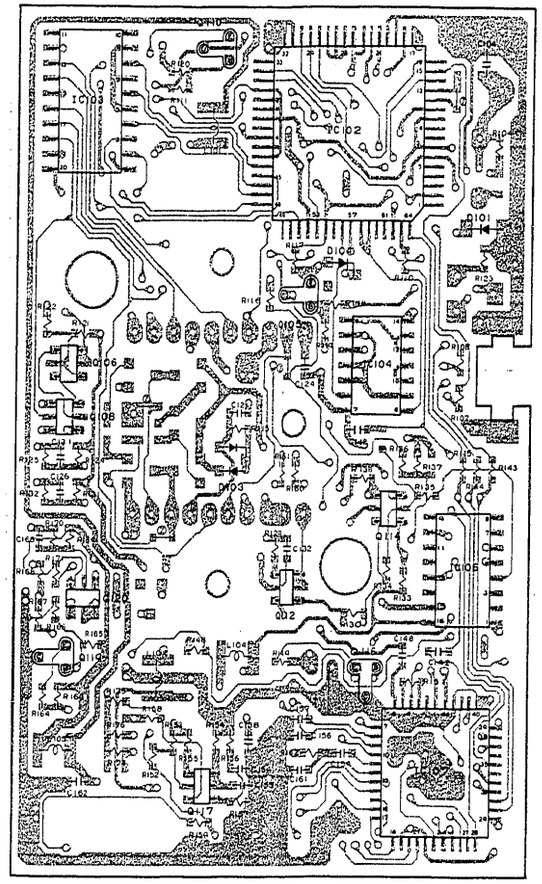
SENSOR SCHEMATIC (VM-1350A(C) ONLY)



SENSOR CIRCUIT BOARD (VM-1350A(C) ONLY)



SENSOR P.C.B
(COMPONENT SIDE)



NOTE: MARK "②" IS LEADLESS (CHIP) JUMPER.

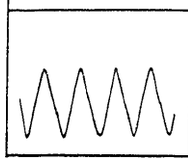
SENSOR P.C.B
(SOLDER SIDE)

: Soldered side
: Parts side

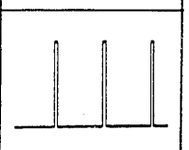
: Soldered side

SCHEMATIC	PAGE	SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19	MIC	5-20
AUDIO	5-35	LUMINANCE/CHROMA	5-29
BATT.-/LIGHT - TERMINAL	5-19	PROCESS	5-11
CAPSTAN MOTOR	5-26	PROCESS [VM-1350A(C)]	5-43
CONTROL	5-16	PRE AMP	5-28
CYL. MOTOR DRIVE	5-26	SENSOR	5-7
DC-DC CONVERTER	5-27	SENSOR [VM-1350A(C)]	5-39
DC LIGHT CONT.	5-19	SYSTEM CONTROL	5-21
ENCODER	5-15	SWITCHING REGURATOR	5-25
ENCODER [VM-1350A(C)]	5-47	SERVO	5-23
ELECTRONIC VIEWFINDER, INDI.	5-17	TROUBLE SENSOR	5-37
FOCUS SENSOR	5-18		

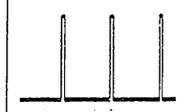
1-A IC102-21 4.6Vp-p
1V/20.0nsec.cm
COLOR CHART



2-A IC102-63 5.2Vp-p
1V/20.0μ sec.cm
COLOR CHART

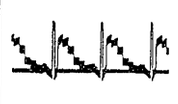


3-A IC102-52 5.2Vp-p
1V/20.0μ sec.cm
COLOR CHART

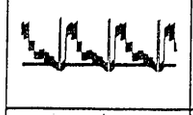


4-A IC107-13 880mVp-p
0.2V/20.0μ sec.cm
COLOR CHART

5-A IC107-14 310mVp-p
0.1V/20.0μ sec.cm
COLOR CHART



6-A IC107-15 390mVp-p
0.1V/20.0μ sec.cm
COLOR CHART



7-A IC107-16 370mVp-p
0.1V/20.0μ sec.cm
COLOR CHART

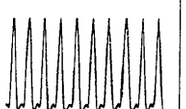
8-A IC107-17 590mVp-p
0.1V/20.0μ sec.cm
COLOR CHART

9-A IC107-18 540mVp-p
0.1V/20.0μ sec.cm
COLOR CHART

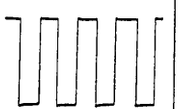
10-A IC107-20 580mVp-p
0.1V/20.0μ sec.cm
COLOR CHART

11-A IC107-28 620mVp-p
0.2V/20.0μ sec.cm
COLOR CHART

12-A IC107-29 5.4Vp-p
1V/50.0nsec.cm
COLOR CHART

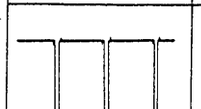


13-A IC107-31 5.2Vp-p
1V/50.0μ sec.cm
COLOR CHART

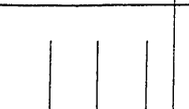


14-A IC107-32 630mVp-p
0.2V/20.0μ sec.cm
COLOR CHART

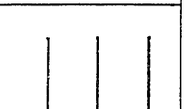
15-A IC107-35 5.1Vp-p
1V/20.0μ sec.cm
COLOR CHART



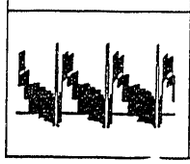
16-A IC107-41 4.8Vp-p
1V/20.0μ sec.cm
COLOR CHART



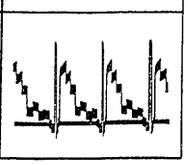
17-A IC107-42 5.1Vp-p
1V/20.0μ sec.cm
COLOR CHART



18-A IC106-4 850mVp-p
0.2V/20.0μ sec.cm
COLOR CHART

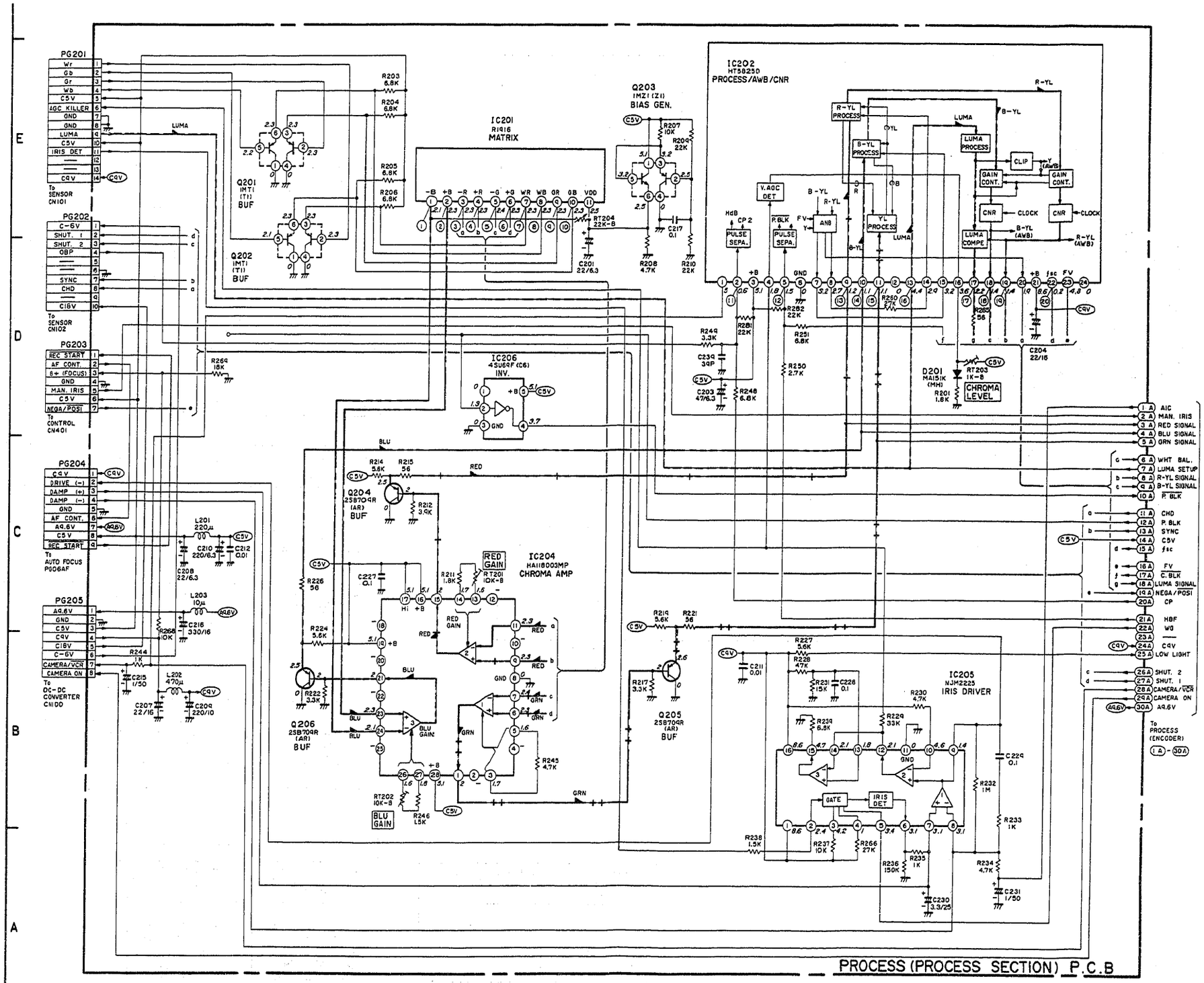


19-A IC106-6 530mVp-p
0.1V/20.0μ sec.cm
COLOR CHART

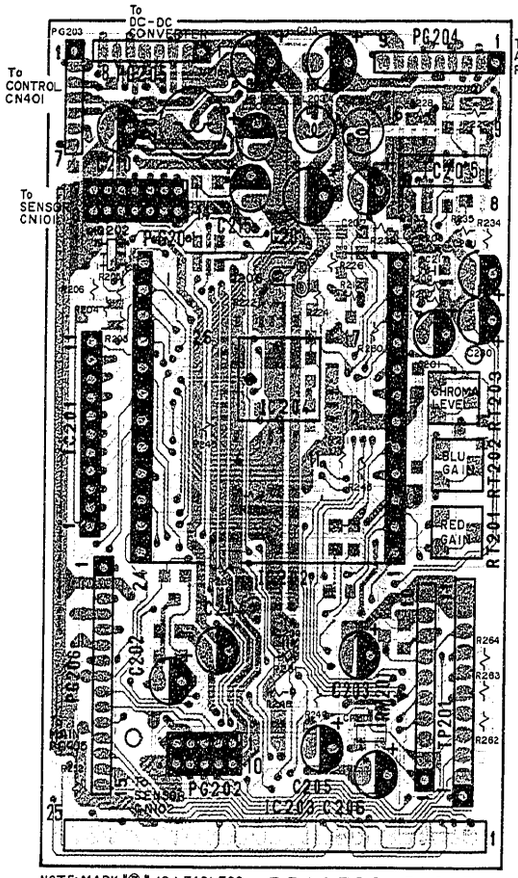


PROCESS (PROCESS SECTION) SCHEMATIC (VM-1350A(/

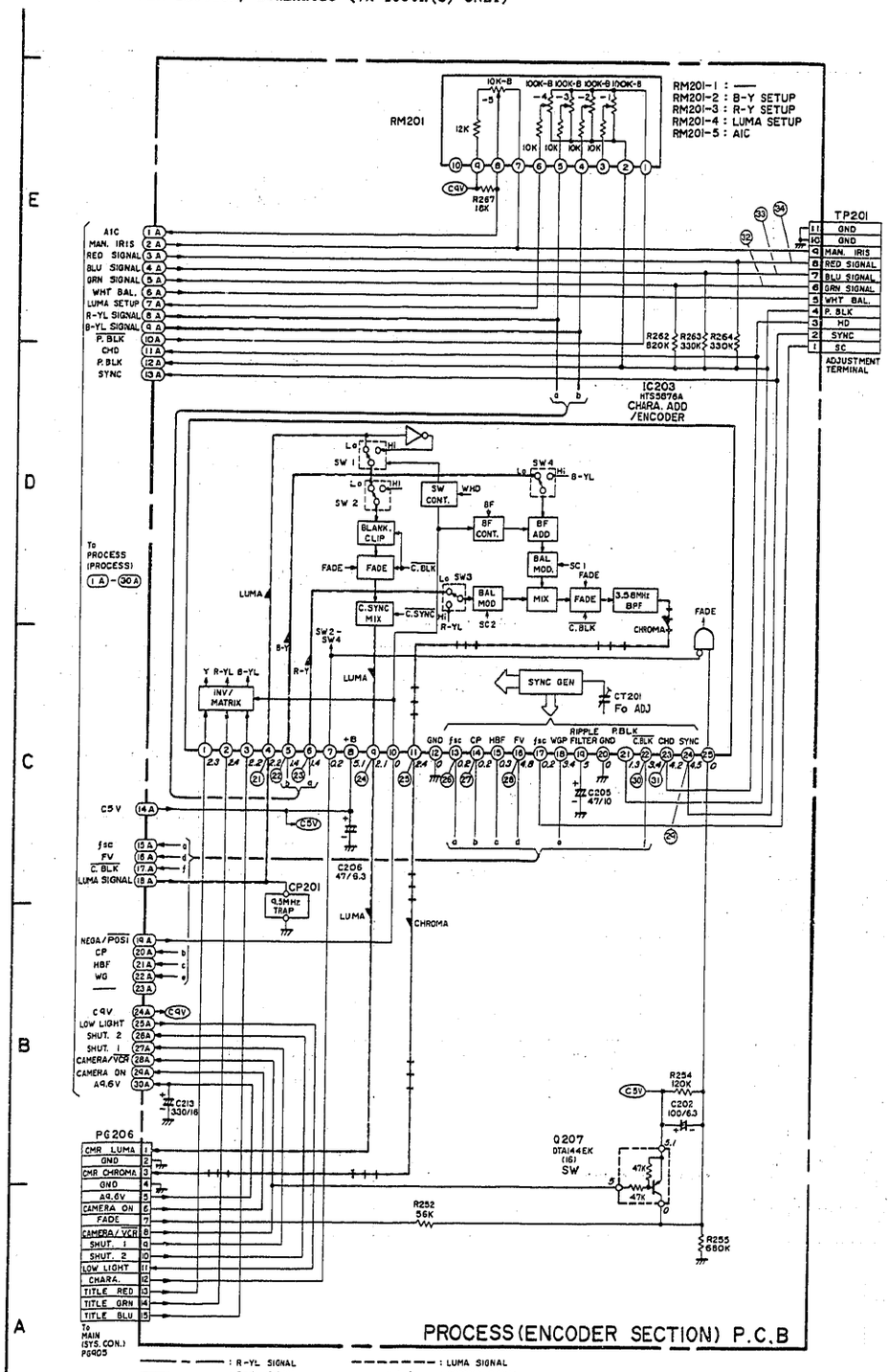
SCHEMATIC	PAGE
AUTO FOCUS, LED	5-19
AUDIO	5-35
BATT.-/LIGHT - TERMINAL	5-19
CAPSTAN MOTOR	5-26
CONTROL	5-16
CYL. MOTOR DRIVE	5-26
DC-DC CONVERTER	5-17
DC LIGHT CONT.	5-19
ENCODER	5-15
ENCODER [VM-1350A(C)]	5-47
ELECTRONIC VIEWFINDER, INDI.	5-17
FOCUS SENSOR	5-18
MIC	5-20
LUMINANCE/CHROMA	5-29
PROCESS	5-11
PROCESS [VM-1350A(C)]	5-43
PRE AMP	5-28
SENSOR	5-7
SENSOR [VM-1350A(C)]	5-39
SYSTEM CONTROL	5-21
SWITCHING REGURATOR	5-25
SERVO	5-23
TROUBLE SENSOR	5-37



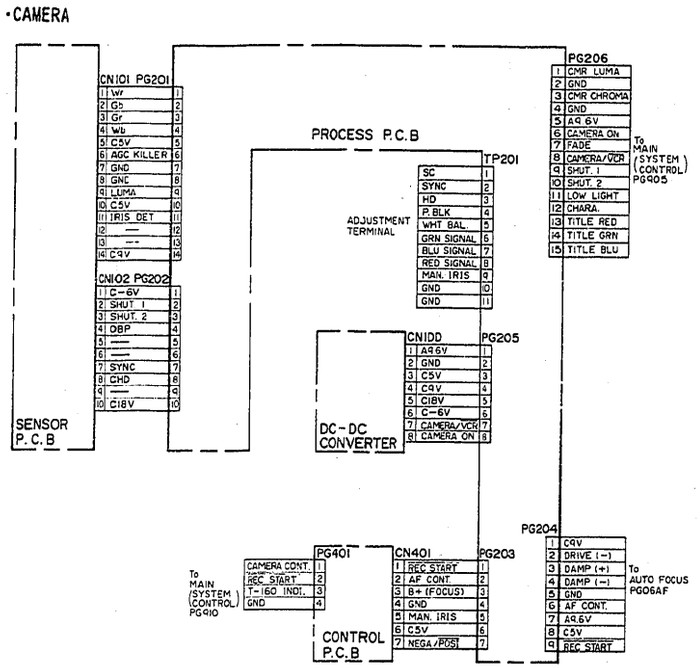
PROCESS CIRCUIT BOARD (VM-1350A(C) ONLY)



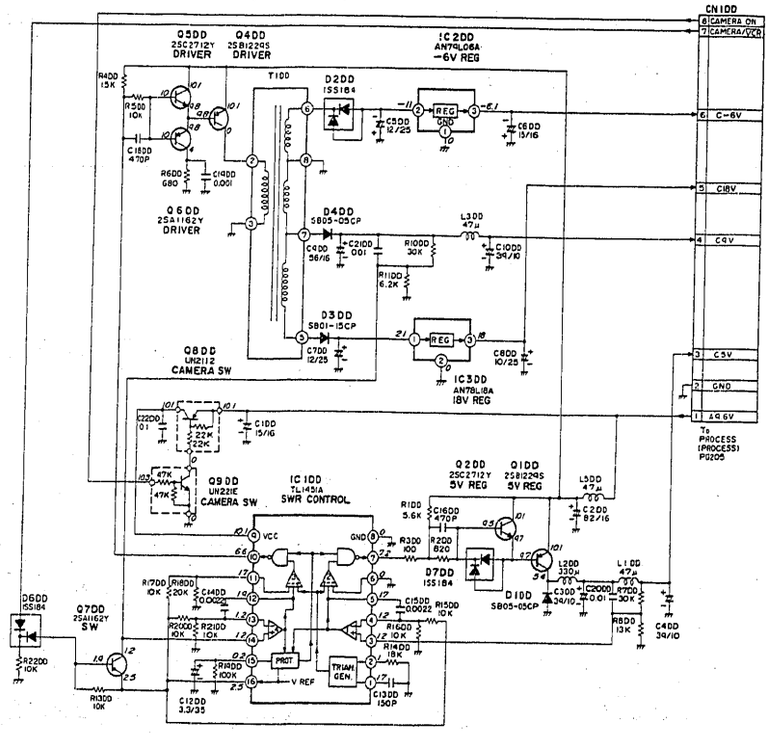
PROCESS (ENCODER SECTION) SCHEMATIC (VM-1350A(C) ONLY)



CIRCUIT BOARD CONNECTION DIAGRAM (VM-1350A(C) ONLY)

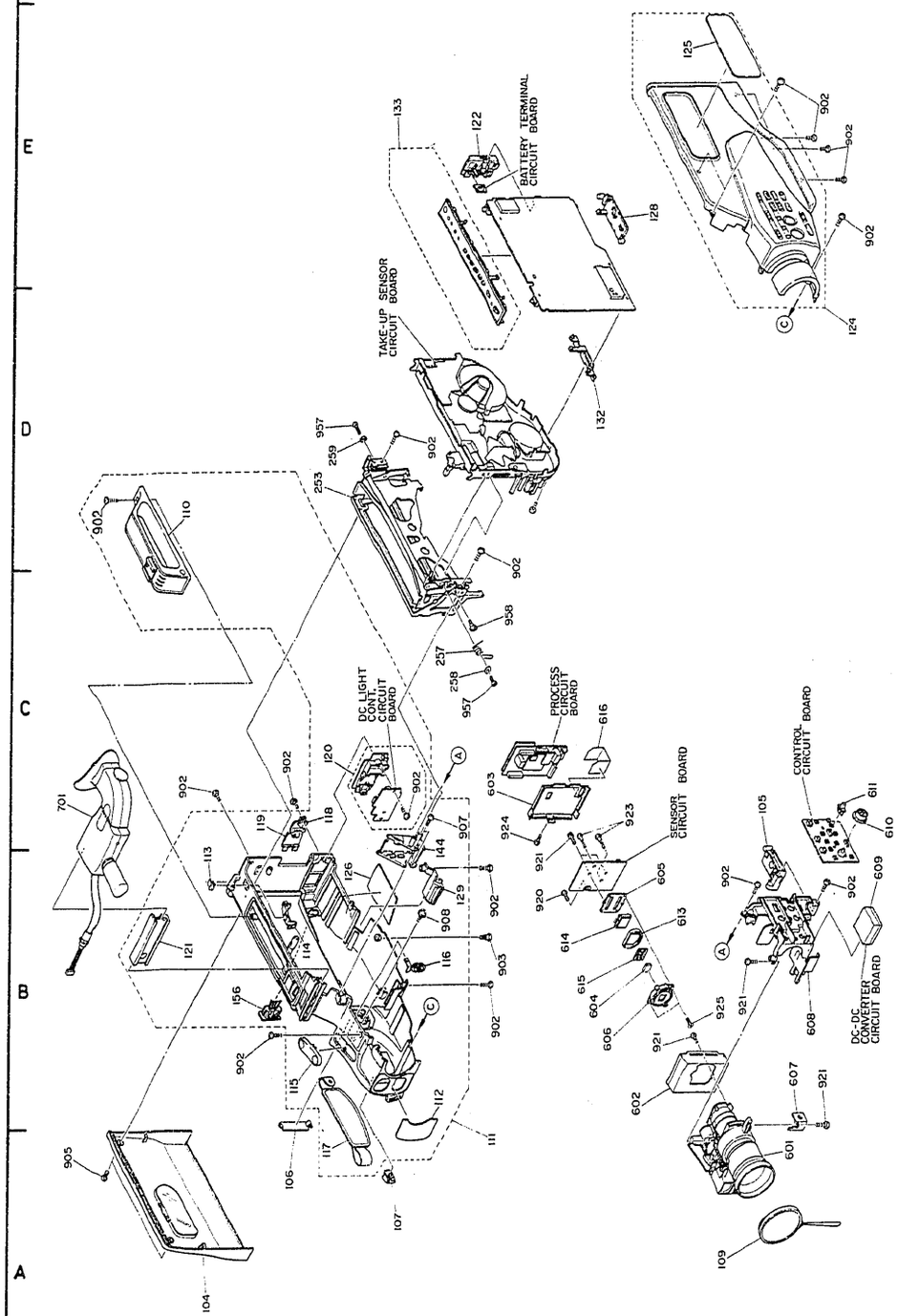


DC-DC CONVERTER SCHEMATIC (Reference)

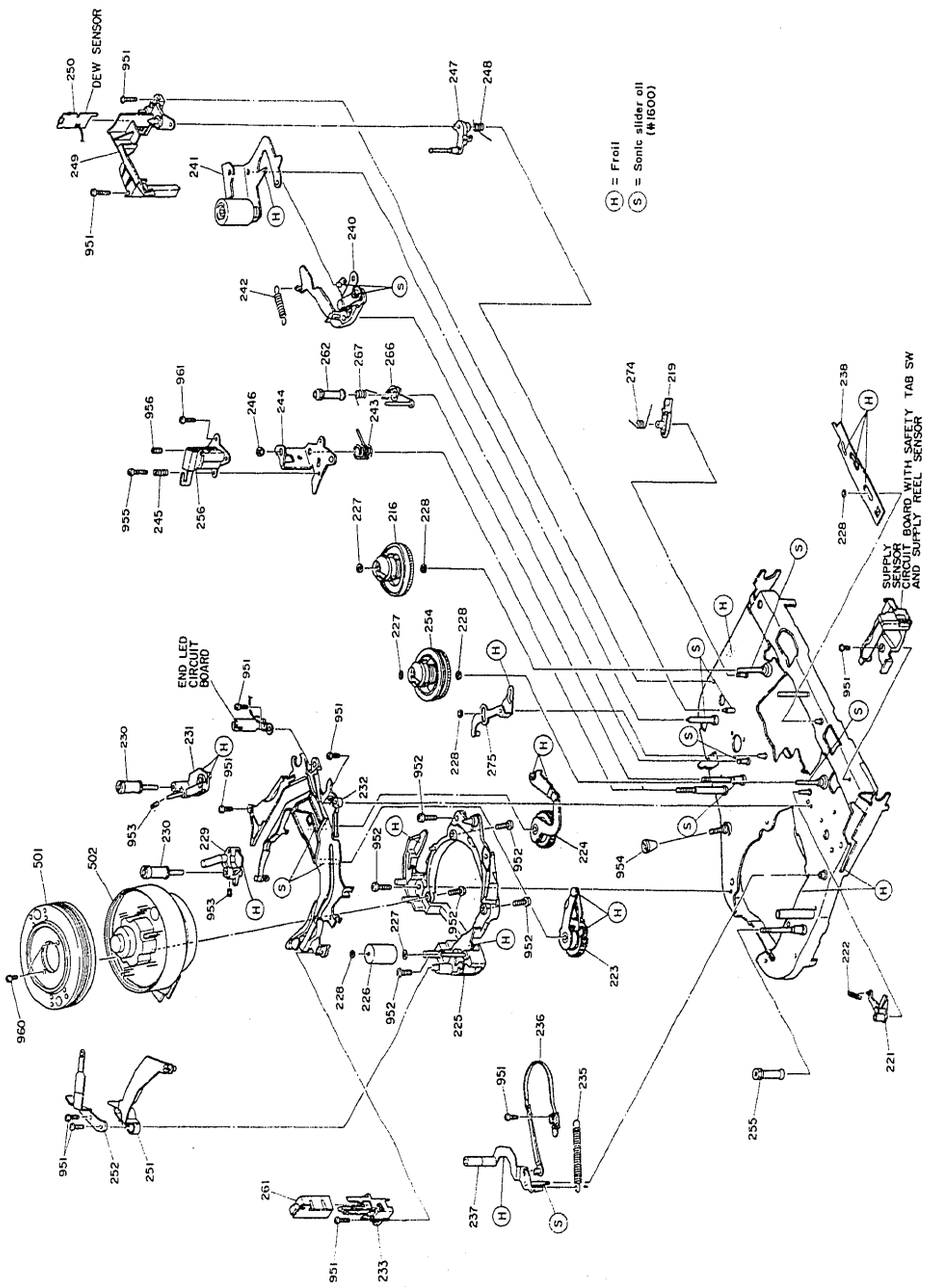


DC-DC CONVERTER

CABINET SECTION



CHASSIS (UPPER) SECTION


DEW SENSOR
(H) = Froil
(S) = Sonic slider oil (#1600)
END LED CIRCUIT BOARD
SUPPLY SENSOR CIRCUIT BOARD WITH SAFETY TAB SW AND SUPPLY REEL SENSOR

LUBLICATION

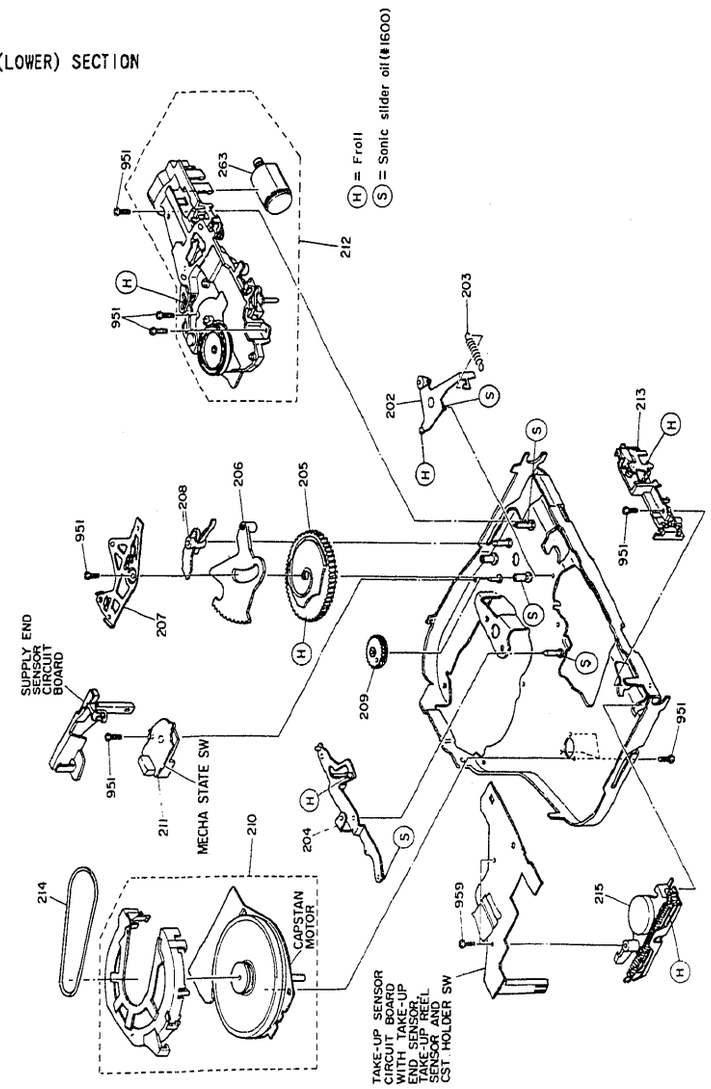
Lubrication points are shown in the exploded view diagrams by marks (Ⓢ, Ⓕ).

Lubricants shown in the diagram are as follows.

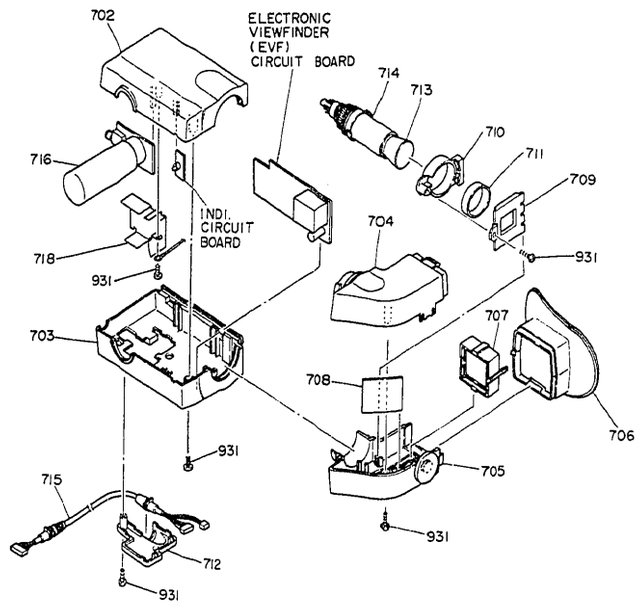
Ⓢ Sonic slider oil (#1600)

Ⓕ Froil (G31-SAY)

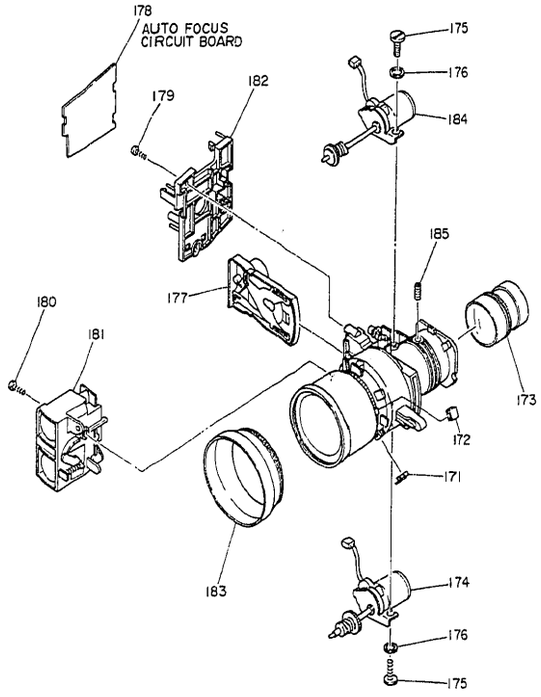
CHASSIS (LOWER) SECTION



ELECTRONIC VIEWFINDER(EVF) SECTION



LENS SECTION



SYMBOL-NO	P-NO	DISCRIPTION
	MECHANISM SECTION	
104	6489612	LID
105	6185351	FRAME, BOTTOM
106	4710596	LID
107	4710575	CAP, AF
109	6442881	CAP, HOOD
110	7071547	HANDLE
111	4710826	CASE(R)
112	6249883	CLEAR, AF
113	6070401	KNOB, BATT
114	6810451	LEVER, LOCK
115	4741091	BUTTON
116	4741081	BUTTON
117	6336422	STRAP
118	6487081	CAP, FUSE
119	6487071	CAP
120	6810712	HOLDER ASSY. BATTERY
121	6439787	SHOE, EVF
122	6017472	TERMINAL
124	4710759	CASE(L)
125	6442973	PAD, EAR
126	6442771	PAD
128	6487062	PANEL, AV
129	6810731	STRAP
132	6810681	HINGE, CBA
133	4741204	BUTTON ASSY
144	6336414	HOLDER, HANDLE
156	5886751	SOCKET
171	6960491	STOPPER
172	6960492	RUBBER, STOPPER
173	6960493	LENS, REAR
174	6960494	MOTOR, ZOOM
175	6960495	SCREW(M1.7X4)
176	6960496	WASHER
177	6960497	IRIS BLOCK
178	1616651	PWB ASSY AUTO FOCUS
179	6960499	SCREW(M1.7X6)
180	6960501	SCREW(M2X5.5)
181	6960511	AUTO FOCUS BLOCK
182	6960512	FRMAE
183	6442761	HOOD, LENS
184	6960513	MOTOR, AUTO FOCUS
185	6960514	SCREW
202	7469133	ARM
203	6555791	SPRING
204	7469921	ARM, CAM
205	6440163	GEAR
206	6916111	GEAR
207	7449128	GUIDE
208	6805682	ARM, OPERATION
209	6440172	GEAR
210	5571771	MOTOR, CAPSTAN
211	5610821	SWITCH
212	6820585	BLOCK, RL
213	6806077	HOLDER
214	6356622	BELT
215	6806128	SLIDER
216	6887719	TABLE, REEL
219	6820551	BRAKE
221	6806322	BRAKE, SUB
222	6555814	SPRING
223	7448756	GEAR, LOADING
224	7448785	GEAR, LOADING
225	6916141	BASE, CYLINDER

SYMBOL-NO	P-NO	DISCRIPTION
226	6416091	ROLLER, IMPEDANCE
227	7786623	POLYSLIDER WASHER
228	7778859	POLYSLIDER WASHER
229	6911653	BASE, GUIDE ROLLER(IN)
230	6424741	ROLLER
231	6911653	BASE, GUIDE ROLLER(OUT)
232	6805665	PLATE, GUIDE
233	6806223	BASE, HEAD
235	6555823	SPRING
236	7448815	BAND, TENTION
237	7472871	ARM, TENTION
238	7448855	SLIDER
240	7469941	LINK, PRESSER ROLLER
241	7469903	ARM, PRESSER ROLLER
242	6523244	SPRING
243	6551952	SPRING
244	7448933	ARM, HEAD
245	6523252	SPRING
246	7785673	NUT
247	6911697	ARM
248	6551961	SPRING
249	6806255	PLATE
251	6820571	GUIDE
250	0173062	DEW SENSOR
252	5793751	BRUSH
253	7472923	STAGE
254	6894479	REEL, SUPPLY
255	4508237	GUIDE, TAPE
256	5443491	HEAD, AUDIO CONTROL
257	6550942	SPRING
258	7789931	WASHER
259	7789951	WASHER
261	5445872	HEAD, FULL ERASE
262	4508235	GUIDE
263	5579071	MOTOR, LOADING
266	6916123	ARM
267	6552507	SPRING
274	6552493	SPRING
275	7469951	ARM, OPERATION
501	5436159	CYLINDER, UPPER F3NC
502	5436371	CYLINDER, LOWER F3ND
601	6960191	LENS, ZOOM
602	7498904	CASE, SHIELD
603	7499831	SHIELD
604	5783141	FILTER, QUARTZ CRYSTAL
605	4892682	PLATE
606	6810151	LID SENSOR
607	6810821	PICE, BOTTOM
608	6185331	FRAME, LENS
609	5274251	DC-DC CONVERTOR
610	4750211	KNOB, IRIS
611	4750222	KNOB, NP
613	6810161	GUIDE, SENSOR
614	5318302	CCD IMAGE DEVICE MN3739H(For U)
614	5318371	IC HE95225(For C)
615	4790511	RUBBER
616	7499761	SHEET, SHIELD
701	4001222	EVF ASSY
702	4710318	CASE, UPPER
703	4710328	CASE, BOTTOM
704	4710021	UPPER NECK
705	4710331	BOTTOM, NECK
706	6014322	CAP, EYE
707	6958292	LENS, EVF
708	4892171	MIRROR

SYMBOL-NO	P-NO	DISCRIPTION
709	6814931	COVER, CRT
710	6814921	HOLDER, CRT
711	6597371	RUBBER, CRT
712	6810581	HOLDER, CONNECTOR
713	5319012	PICUTURETUBE (M01KGG077WB)
714	5242026	DEFLECTION YOKE
715	5860601	CONNECTOR
716	5420833	MICROPHONE
717	6079411	KNOB, WIND SWICH
718	7498812	PLATE, SHIELD
902	8699308	SCREW (2.6X8) BLACK
903	7784373	SCREW
905	7784782	SCREW (3X4)
907	8691308	BT SCREW-2.6MMDX8MM
908	7775901	SCREW
909	8741106	SCREW (2X6)
920	8741103	SCREW(2X3B)
921	8691106	SCREW (2X6)
923	8612114	SCREW (2X14)
924	8741104	SCREW (2X4)
925	8652105	SCREW (PSW2X5)
931	8699106	SCREW(2X6)
951	8741106	SCREW (2X6)
952	8741408	SCREW (B3X8)
953	7782616	SCREW
954	6911101	SCREW
955	8741110	BIND SCREW-2MMDX 10MM
956	7782619	SCREW 2X5
957	8741109	SCREW
958	7784371	SCREW
959	8691106	SCREW (2X6)
961	8741104	SCREW (2X4)
802	7743433	STRAP, HAND
803	4130461	ADAPTER, AC
804	5858842	A/V OUTPUT CABLE

VTR SECTION

C 201	0209943	CERAMIC DISC 120PF+-5%
C 202	0209994	CERAMIC CHIP 0.33UF+80-20% 25V
C 203	0209994	CERAMIC CHIP 0.33UF+80-20% 25V
C 204	0209994	CERAMIC CHIP 0.33UF+80-20% 25V
C 205	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 206	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 207	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 208	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 209	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 210	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 211	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 212	0209930	CERAMIC CHIP 10PF+-0.5% 50V
C 213	0209941	CERAMIC DISC 82PF+-5%
C 214	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 215	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 216	0209994	CERAMIC CHIP 0.33UF+80-20% 25V
C 217	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 218	0209941	CERAMIC DISC 82PF+-5%
C 219	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 220	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 221	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 222	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 223	0209943	CERAMIC DISC 120PF+-5%
C 224	0209939	CERAMIC CHIP 56PF+-5% 50V
C 225	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 226	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 227	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 228	0209941	CERAMIC DISC 82PF+-5%

SYMBOL-NO	P-NO	DISCRIPTION
C 229	0209869	CERAMIC DISC 0.047UF+80-20% 25V
C 230	0209974	CERAMIC CHIP 1000PF+-5% 50V
C 231	0209934	CERAMIC CHIP 22PF+-5% 50V
C 232	0209934	CERAMIC CHIP 22PF+-5% 50V
C 233	0209941	CERAMIC DISC 82PF+-5%
C 234	0209934	CERAMIC CHIP 22PF+-5% 50V
C 235	0209934	CERAMIC CHIP 22PF+-5% 50V
C 236	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 238	0209938	CERAMIC CHIP 47PF+-5% 50V
C 240	0209937	CERAMIC CHIP 39PF+-5% 50V
C 241	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 242	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 243	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 245	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 246	0209934	CERAMIC CHIP 22PF+-5% 50V
C 247	0209941	CERAMIC DISC 82PF+-5%
C 248	0209934	CERAMIC CHIP 22PF+-5% 50V
C 249	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 250	0209933	CERAMIC CHIP 18PF+-5% 50V
C 251	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 252	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 254	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 255	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 256	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 257	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 258	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 259	0209925	CERAMIC DISC 5PF+-0.25%
C 260	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 261	0209940	CERAMIC CHIP 68PF+-5% 50V
C 262	0209905	CERAMIC CHIP 680PF+-5% 50V
C 263	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 264	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 265	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 266	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 267	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 268	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 269	0209931	CERAMIC CHIP 12PF+-5% 50V
C 270	0209936	CERAMIC CHIP 33PF+-5% 50V
C 310	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 311	0209940	CERAMIC CHIP 68PF+-5% 50V
C 312	0209931	CERAMIC CHIP 12PF+-5% 50V
C 313	0209854	CERAMIC DISC 330PF+-5% 50V
C 315	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 316	0209900	CERAMIC CHIP 270PF+-5% 50V
C 423	0204279	POLYPROPYLENE 0.022UF+-5% 10V
C 424	0204271	POLYESTER FILM 8200PF+-5% 100V
C 431	0209863	CERAMIC DISC 680OPF+-10% 50V
C 432	0209862	CERAMIC CHIP 4700PF+-10% 50V
C 433	0209863	CERAMIC DISC 680OPF+-10% 50V
C 434	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 435	0209868	CERAMIC CHIP 0.033UF+-10% 25V
C 437	0209850	CERAMIC DISC 0.015UF+-20% 50V
C 439	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 440	0209854	CERAMIC DISC 330PF+-5% 50V
C 441	0209862	CERAMIC CHIP 4700PF+-10% 50V
C 442	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 443	0209868	CERAMIC CHIP 0.033UF+-10% 25V
C 444	0209994	CERAMIC CHIP 0.33UF+80-20% 25V
C 446	0209974	CERAMIC CHIP 1000PF+-5% 50V
C 449	0209856	CERAMIC DISC 220PF+-5% 50V
C 450	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 451	0209868	CERAMIC CHIP 0.033UF+-10% 25V
C 453	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 454	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 455	0209969	CERAMIC CHIP 0.1UF+80-20% 25V

SYMBOL-NO	P-NO	DISCRIPTION
C 456	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 595	0201007	CERAMIC CHIP 0.01UF+-20% 50V
C 596	0209860	CERAMIC DISC 2200PF+-10% 50V
C 621	0209862	CERAMIC CHIP 4700PF+-10% 50V
C 631	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 632	0209869	CERAMIC DISC 0.047UF+80-20% 25V
C 633	0201073	CERAMIC CHIP 0.068UF+80-20% 25V
C 634	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 635	0209974	CERAMIC CHIP 1000PF+-5% 50V
C 636	0209974	CERAMIC CHIP 1000PF+-5% 50V
C 637	0209856	CERAMIC DISC 220PF+-5% 50V
C 638	0209974	CERAMIC CHIP 1000PF+-5% 50V
C 641	0209855	CERAMIC CHIP 0.022UF+-20% 25V
C 642	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 910	0209939	CERAMIC CHIP 56PF+-5% 50V
C 911	0209934	CERAMIC CHIP 22PF+-5% 50V
C 913	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 914	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 916	0209933	CERAMIC CHIP 18PF+-5% 50V
C 917	0209935	CERAMIC CHIP 27PF+-5% 50V
C 918	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 919	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 921	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 922	0209869	CERAMIC DISC 0.047UF+80-20% 25V
C 924	0209963	CERAMIC CHIP 0.22UF+80-20% 16V
C 926	0209868	CERAMIC CHIP 0.033UF+-10% 25V
C 927	0209868	CERAMIC CHIP 0.033UF+-10% 25V
C 928	0209868	CERAMIC CHIP 0.033UF+-10% 25V
C 929	0209856	CERAMIC DISC 220PF+-5% 50V
C 931	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 932	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 933	0209838	CERAMIC CHIP 0.01UF+-20% 50V
C 934	0209931	CERAMIC CHIP 12PF+-5% 50V
R 201	0103819	CHIP RESISTOR 10 OHM+-5% 0.1W
R 202	0103819	CHIP RESISTOR 10 OHM+-5% 0.1W
R 203	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 204	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 205	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 206	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 207	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 208	0103824	CHIP RESISTOR 27 OHM+-5% 0.1W
R 209	0103813	CHIP RESISTOR 3.3 OHM+-10% 0.1W
R 210	0103837	CHIP RESISTOR 330 OHM+-5% 0.1W
R 211	0103813	CHIP RESISTOR 3.3 OHM+-10% 0.1W
R 212	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 214	0103876	CHIP RESISTOR 560KOHM+-5% 0.1W
R 215	0103841	CHIP RESISTOR 680 OHM+-5% 0.1W
R 216	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 217	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 218	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 219	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 220	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 221	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 222	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 223	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 224	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 225	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 226	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 227	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 228	0103842	CHIP RESISTOR 820 OHM+-5% 0.1W
R 230	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 231	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W
R 232	0103852	CHIP RESISTOR 5.6KOHM+-5% 0.1W
R 233	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W
R 234	0103848	CHIP RESISTOR 2.7KOHM+-5% 0.1W

SYMBOL-NO	P-NO	DISCRIPTION
R 235	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 236	0103837	CHIP RESISTOR 330 OHM+-5% 0.1W
R 237	0103842	CHIP RESISTOR 820 OHM+-5% 0.1W
R 238	0103866	CHIP RESISTOR 82KOHM+-5% 0.1W
R 239	0103838	CHIP RESISTOR 390 OHM+-5% 0.1W
R 240	0103838	CHIP RESISTOR 390 OHM+-5% 0.1W
R 241	0103841	CHIP RESISTOR 680 OHM+-5% 0.1W
R 242	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 243	0103848	CHIP RESISTOR 2.7KOHM+-5% 0.1W
R 244	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 245	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 246	0103840	CHIP RESISTOR 560 OHM+-5% 0.1W
R 247	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 248	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 249	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 250	0103835	CHIP RESISTOR 220 OHM+-5% 0.1W
R 251	0103862	CHIP RESISTOR 39KOHM+-5% 0.1W
R 252	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W
R 253	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 254	0103835	CHIP RESISTOR 220 OHM+-5% 0.1W
R 255	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 256	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 257	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W
R 258	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 259	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 260	0103842	CHIP RESISTOR 820 OHM+-5% 0.1W
R 261	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 263	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 264	0103848	CHIP RESISTOR 2.7KOHM+-5% 0.1W
R 265	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W
R 266	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 267	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 268	0103876	CHIP RESISTOR 560KOHM+-5% 0.1W
R 269	0103841	CHIP RESISTOR 680 OHM+-5% 0.1W
R 270	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 271	0103840	CHIP RESISTOR 560 OHM+-5% 0.1W
R 272	0103876	CHIP RESISTOR 560KOHM+-5% 0.1W
R 273	0103893	CHIP RESISTOR 75 OHM+-5% 1/8W
R 274	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W
R 275	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W
R 276	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 277	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 278	0103841	CHIP RESISTOR 680 OHM+-5% 0.1W
R 279	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 280	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 281	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W
R 282	0103845	CHIP RESISTOR 1.5KOHM+-5% 0.1W
R 283	0103836	CHIP RESISTOR 270 OHM+-5% 0.1W
R 284	0103844	CHIP RESISTOR 1.2KOHM+-5% 0.1W
R 285	0103876	CHIP RESISTOR 560KOHM+-5% 0.1W
R 287	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 290	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 291	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 292	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 293	0103852	CHIP RESISTOR 5.6KOHM+-5% 0.1W
R 294	0103841	CHIP RESISTOR 680 OHM+-5% 0.1W
R 297	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 298	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 299	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 401	0103819	CHIP RESISTOR 10 OHM+-5% 0.1W
R 402	0103865	CHIP RESISTOR 68KOHM+-5% 0.1W
R 403	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 404	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W
R 405	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 406	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W

SYMBOL-NO	P-NO	DISCRIPTION
R 407	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 408	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 409	0103873	CHIP RESISTOR 330KOHM+-5% 0.1W
R 410	0103835	CHIP RESISTOR 220 OHM+-5% 0.1W
R 411	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W
R 412	0103857	CHIP RESISTOR 15KOHM+-5% 0.1W
R 413	0103844	CHIP RESISTOR 1.2KOHM+-5% 0.1W
R 414	0103853	CHIP RESISTOR 6.8KOHM+-5% 0.1W
R 415	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 416	0103865	CHIP RESISTOR 68KOHM+-5% 0.1W
R 417	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 418	0103867	CHIP RESISTOR 100KOHM+-5% 0.1W
R 420	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 422	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 423	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 424	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 425	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 426	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 427	0103819	CHIP RESISTOR 10 OHM+-5% 0.1W
R 428	0103864	CHIP RESISTOR 56KOHM+-5% 0.1W
R 429	0103845	CHIP RESISTOR 1.5KOHM+-5% 0.1W
R 430	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 431	0103866	CHIP RESISTOR 82KOHM+-5% 0.1W
R 432	0103836	CHIP RESISTOR 270 OHM+-5% 0.1W
R 433	0103862	CHIP RESISTOR 39KOHM+-5% 0.1W
R 434	0103865	CHIP RESISTOR 68KOHM+-5% 0.1W
R 435	0103873	CHIP RESISTOR 330KOHM+-5% 0.1W
R 436	0103827	CHIP RESISTOR 47 OHM+-5% 0.1W
R 437	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 439	0103854	CHIP RESISTOR 8.2KOHM+-5% 0.1W
R 440	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 441	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 442	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 443	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 444	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 448	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 449	0103857	CHIP RESISTOR 15KOHM+-5% 0.1W
R 450	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 451	0103867	CHIP RESISTOR 100KOHM+-5% 0.1W
R 452	0103867	CHIP RESISTOR 100KOHM+-5% 0.1W
R 453	0103857	CHIP RESISTOR 15KOHM+-5% 0.1W
R 454	0103869	CHIP RESISTOR 150KOHM+-5% 0.1W
R 455	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 456	0103872	CHIP RESISTOR 270KOHM+-5% 0.1W
R 457	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 460	0103837	CHIP RESISTOR 330 OHM+-5% 0.1W
R 461	0103840	CHIP RESISTOR 560 OHM+-5% 0.1W
R 462	0103893	CHIP RESISTOR 75 OHM+-5% 1/8W
R 465	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 466	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 479	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 573	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W
R 574	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W
R 581	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W
R 582	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 583	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 584	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 585	0103842	CHIP RESISTOR 820 OHM+-5% 0.1W
R 586	0103842	CHIP RESISTOR 820 OHM+-5% 0.1W
R 601	0103819	CHIP RESISTOR 10 OHM+-5% 0.1W
R 602	0103819	CHIP RESISTOR 10 OHM+-5% 0.1W
R 603	0103819	CHIP RESISTOR 10 OHM+-5% 0.1W
R 604	0103827	CHIP RESISTOR 47 OHM+-5% 0.1W
R 605	0103827	CHIP RESISTOR 47 OHM+-5% 0.1W
R 606	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W

SYMBOL-NO	P-NO	DISCRIPTION
R 607	0103853	CHIP RESISTOR 6.8KOHM+-5% 0.1W
R 608	0103842	CHIP RESISTOR 820 OHM+-5% 0.1W
R 609	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 610	0103878	CHIP RESISTOR 820KOHM+-5% 0.1W
R 611	0103862	CHIP RESISTOR 39KOHM+-5% 0.1W
R 612	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 613	0103872	CHIP RESISTOR 270KOHM+-5% 0.1W
R 614	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 615	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W
R 616	0103860	CHIP RESISTOR 27KOHM+-5% 0.1W
R 617	0103876	CHIP RESISTOR 560KOHM+-5% 0.1W
R 618	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 619	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 620	0103867	CHIP RESISTOR 100KOHM+-5% 0.1W
R 621	0103854	CHIP RESISTOR 8.2KOHM+-5% 0.1W
R 622	0103867	CHIP RESISTOR 100KOHM+-5% 0.1W
R 623	0103864	CHIP RESISTOR 56KOHM+-5% 0.1W
R 624	0103869	CHIP RESISTOR 150KOHM+-5% 0.1W
R 625	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 626	0103868	CHIP RESISTOR 120KOHM+-5% 0.1W
R 627	0103838	CHIP RESISTOR 390 OHM+-5% 0.1W
R 628	0103838	CHIP RESISTOR 390 OHM+-5% 0.1W
R 629	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 630	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 631	0103877	CHIP RESISTOR 680KOHM+-5% 0.1W
R 632	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 633	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 634	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 635	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 636	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 640	0103852	CHIP RESISTOR 5.6KOHM+-5% 0.1W
R 641	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 646	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 901	0104262	CHIP RESISTOR 6.8KOHM+-1% 0.1W
R 902	0104111	METAL FILM 10KOHM+-10% 1/10W
R 903	0103848	CHIP RESISTOR 2.7KOHM+-5% 0.1W
R 904	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 905	0103873	CHIP RESISTOR 330KOHM+-5% 0.1W
R 906	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 907	0103827	CHIP RESISTOR 47 OHM+-5% 0.1W
R 908	0103835	CHIP RESISTOR 220 OHM+-5% 0.1W
R 909	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 910	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 911	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 912	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 913	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 914	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 915	0103857	CHIP RESISTOR 15KOHM+-5% 0.1W
R 916	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 917	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 918	0103860	CHIP RESISTOR 27KOHM+-5% 0.1W
R 919	0103862	CHIP RESISTOR 39KOHM+-5% 0.1W
R 920	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 921	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W
R 922	0103857	CHIP RESISTOR 15KOHM+-5% 0.1W
R 923	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 924	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 925	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 926	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 927	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 928	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 929	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 930	0103870	CHIP RESISTOR 180KOHM+-5% 0.1W
R 931	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 932	0104111	METAL FILM 10KOHM+-10% 1/10W

SYMBOL-NO	P-NO	DISCRIPTION
R 933	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 934	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 936	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 937	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 939	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 940	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 941	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 942	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 943	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 944	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 945	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 946	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 947	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 948	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 949	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 950	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 951	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 952	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 953	0104111	METAL FILM 10KOHM+-10% 1/10W
R 954	0104111	METAL FILM 10KOHM+-10% 1/10W
R 955	0103854	CHIP RESISTOR 8.2KOHM+-5% 0.1W
R 956	0103838	CHIP RESISTOR 390 OHM+-5% 0.1W
R 957	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 958	0103838	CHIP RESISTOR 390 OHM+-5% 0.1W
R 959	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 960	0103850	CHIP RESISTOR 3.9KOHM+-5% 0.1W
R 961	0103840	CHIP RESISTOR 560 OHM+-5% 0.1W
R 962	0103852	CHIP RESISTOR 5.6KOHM+-5% 0.1W
R 963	0103842	CHIP RESISTOR 820 OHM+-5% 0.1W
R 964	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 965	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W
R 966	0103841	CHIP RESISTOR 680 OHM+-5% 0.1W
R 967	0103862	CHIP RESISTOR 39KOHM+-5% 0.1W
R 968	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 969	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 970	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 971	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 972	0103833	CHIP RESISTOR 150 OHM+-5% 0.1W
R 973	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 974	0103837	CHIP RESISTOR 330 OHM+-5% 0.1W
R 975	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 976	0103837	CHIP RESISTOR 330 OHM+-5% 0.1W
R 979	0103839	CHIP RESISTOR 470OHM+-5% 0.1W
R 980	0103839	CHIP RESISTOR 470OHM+-5% 0.1W
R 981	0103839	CHIP RESISTOR 470OHM+-5% 0.1W
R 991	0103867	CHIP RESISTOR 100KOHM+-5% 0.1W
R 992	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 993	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 994	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 995	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 996	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 997	0103854	CHIP RESISTOR 8.2KOHM+-5% 0.1W
RT 201	5007433	SEMI VARIABLE 2.2KOHM
RT 202	5035044	TRIMMER 1KOHM
RT 402	5007438	SEMI VARIABLE 100KOHM
RT 601	5035052	SEMI VARIABLE 220KOHM
D 001	5380931	LED GL-450
D 201	5337411	DIODE HSM2838C
D 202	5337411	DIODE HSM2838C
D 203	5337411	DIODE HSM2838C
D 204	5337411	DIODE HSM2838C
D 205	5337411	DIODE HSM2838C
D 206	5337411	DIODE HSM2838C
D 207	5337411	DIODE HSM2838C
D 209	5328381	DIODE MA153(MC)

SYMBOL-NO	P-NO	DISCRIPTION
D 402	5328381	DIODE MA153(MC)
D 405	5337411	DIODE HSM2838C
D 581	5331671	DIODE DS135D-FA3
D 582	5328302	DIODE MA151WA(MN)
D 585	5328381	DIODE MA153(MC)
D 591	5328302	DIODE MA151WA(MN)
D 592	5328302	DIODE MA151WA(MN)
D 594	5328302	DIODE MA151WA(MN)
D 595	5328302	DIODE MA151WA(MN)
D 601	5337411	DIODE HSM2838C
D 602	5337411	DIODE HSM2838C
D 902	5328302	DIODE MA151WA(MN)
D 903	5337411	DIODE HSM2838C
D 904	5337411	DIODE HSM2838C
D 905	5328302	DIODE MA151WA(MN)
D 906	5337411	DIODE HSM2838C
D 908	5328381	DIODE MA153(MC)
D 910	5328302	DIODE MA151WA(MN)
D 911	5328302	DIODE MA151WA(MN)
D 912	5328302	DIODE MA151WA(MN)
D 919	5332542	DIODE A81-04F
D 999	5330133	DIODE IS2076
IC 201	1341551	IC P2010
IC 202	1372781	IC HT7262
IC 204	1340081	IC LC8991
IC 205	5305832	IC SC7S08F
IC 206	1350801	IC MM1002
IC 207	5305832	IC SC7S08F
IC 208	5366612	IC TA78L009AP
IC 209	1380064	PWB ASSY FLY ERASE(HES8121C)
IC 401	5363323	IC XRA5114L
IC 402	5364201	IC UPC1513HA
IC 581	1371971	IC HT7188
IC 582	1388671	IC BY6431
IC 601	1351611	IC HD49741
IC 602	1360072	IC XRA6459P1
IC 901	1355343	IC HD404439A17
IC 902	1351601	IC MM1028BF
IC 903	1342131	IC UPD6145C
IC 904	1342423	IC MC147805
IC 905	5307001	IC 8052ALR
IC 906	5300811	IC TA7291S
IC 907	1380301	PWB ASSY TROUBLE DET(BX7596F)
IC 908	5305822	IC SN7S32F
Q 001	5324661	TRANSISTOR PT-483F1
Q 002	5333952	PHOTO TRANSISTOR ON2170LH
Q 003	5324661	TRANSISTOR PT-483F1
Q 004	5333391	TRANSISTOR NJL5161K
Q 201	5328971	TRANSISTOR 2SC2412KBRST
Q 202	5328971	TRANSISTOR 2SC2412KBRST
Q 203	5328971	TRANSISTOR 2SC2412KBRST
Q 204	5328961	TRANSISTOR 2SA1037KERS
Q 205	5326206	TRANSISTOR FMC2
Q 206	5328971	TRANSISTOR 2SC2412KBRST
Q 207	5328793	TRANSISTOR DTC144K-26
Q 208	5328971	TRANSISTOR 2SC2412KBRST
Q 209	5328971	TRANSISTOR 2SC2412KBRST
Q 211	5328971	TRANSISTOR 2SC2412KBRST
Q 212	5328961	TRANSISTOR 2SA1037KERS
Q 213	5328971	TRANSISTOR 2SC2412KBRST
Q 214	5328793	TRANSISTOR DTC144K-26
Q 215	5328793	TRANSISTOR DTC144K-26
Q 217	5328971	TRANSISTOR 2SC2412KBRST
Q 218	5328971	TRANSISTOR 2SC2412KBRST
Q 219	5328971	TRANSISTOR 2SC2412KBRST

SYMBOL-NO	P-NO	DISCRIPTION
Q 220	5328971	TRANSISTOR 2SC2412KBRST
Q 221	5328971	TRANSISTOR 2SC2412KBRST
Q 222	5328961	TRANSISTOR 2SA1037KERS
Q 223	1323081	TRANSISTOR 2SA1036K
Q 225	5328793	TRANSISTOR DTC144K-26
Q 226	5328971	TRANSISTOR 2SC2412KBRST
Q 227	5328971	TRANSISTOR 2SC2412KBRST
Q 228	5328793	TRANSISTOR DTC144K-26
Q 230	5328793	TRANSISTOR DTC144K-26
Q 232	5328793	TRANSISTOR DTC144K-26
Q 233	5328793	TRANSISTOR DTC144K-26
Q 234	5328971	TRANSISTOR 2SC2412KBRST
Q 235	5328971	TRANSISTOR 2SC2412KBRST
Q 236	5328971	TRANSISTOR 2SC2412KBRST
Q 237	5328793	TRANSISTOR DTC144K-26
Q 238	5328793	TRANSISTOR DTC144K-26
Q 403	5328793	TRANSISTOR DTC144K-26
Q 404	5328351	TRANSISTOR 2SD602R(WR)
Q 406	5326201	TRANSISTOR FMG2
Q 408	5328795	TRANSISTOR DTA144EK-16
Q 411	5328793	TRANSISTOR DTC144K-26
Q 412	5328351	TRANSISTOR 2SD602R(WR)
Q 414	5328961	TRANSISTOR 2SA1037KERS
Q 415	5328971	TRANSISTOR 2SC2412KBRST
Q 416	5328971	TRANSISTOR 2SC2412KBRST
Q 421	5328971	TRANSISTOR 2SC2412KBRST
Q 581	5326206	TRANSISTOR FMC2
Q 582	5328961	TRANSISTOR 2SA1037KERS
Q 583	5327331	TRANSISTOR 2SB1240 (R)
Q 584	5327331	TRANSISTOR 2SB1240 (R)
Q 587	1321121	TRANSISTOR 2SD1758(R)
Q 601	5326206	TRANSISTOR FMC2
Q 602	5326201	TRANSISTOR FMG2
Q 901	5328961	TRANSISTOR 2SA1037KERS
Q 902	5328793	TRANSISTOR DTC144K-26
Q 903	5328793	TRANSISTOR DTC144K-26
Q 904	5328971	TRANSISTOR 2SC2412KBRST
Q 906	5328961	TRANSISTOR 2SA1037KERS
Q 907	5328961	TRANSISTOR 2SA1037KERS
Q 908	5328793	TRANSISTOR DTC144K-26
Q 909	1323081	TRANSISTOR 2SA1036K
Q 912	5328793	TRANSISTOR DTC144K-26
Q 913	5328971	TRANSISTOR 2SC2412KBRST
Q 914	5328971	TRANSISTOR 2SC2412KBRST
Q 915	5328971	TRANSISTOR 2SC2412KBRST
Q 919	5321666	TRANSISTOR 2SC2021-SE
ZD 201	5337011	DIODE MA3075L
ZD 401	5337011	DIODE MA3075L
ZD 403	5337011	DIODE MA3075L
ZD 581	5337248	DIODE MA3075L-H
ZD 901	5337012	DIODE MA3056M
ZD 902	5337012	DIODE MA3056M
T 401	5261422	TRANSFORMER, BIAS
T 402	5261482	COIL, BIAS
L 201	5159207	CHOKE COIL 100UH
L 202	5159207	CHOKE COIL 100UH
L 203	5159207	CHOKE COIL 100UH
L 204	0770017	COIL 33UH+-5%
L 205	0770022	COIL 68UH+-5%
L 206	0770028	COIL 220UH+-5%
L 207	5159218	CHOKE COIL 820UH
L 208	0770015	COIL 22UH+-5%
L 209	0770015	COIL 22UH+-5%
L 210	5159191	COIL 5.6UH
L 215	0770014	COIL 18UH+-5%

SYMBOL-NO	P-NO	DISCRIPTION
L 217	0770018	COIL 39UH+-5%
L 218	0770022	COIL 68UH+-5%
L 219	0770022	COIL 68UH+-5%
L 220	5159207	CHOKE COIL 100UH
L 221	5159207	CHOKE COIL 100UH
L 222	5159207	CHOKE COIL 100UH
L 223	5159207	CHOKE COIL 100UH
L 224	5159207	CHOKE COIL 100UH
L 225	5159207	CHOKE COIL 100UH
L 226	5159207	CHOKE COIL 100UH
L 227	0770013	COIL 15UH+-5%
L 228	0770024	COIL 100UH+-5%
L 229	0770024	COIL 100UH+-5%
L 231	0770016	COIL 27UH+-5%
L 232	0770017	COIL 33UH+-5%
L 233	0770011	COIL 10UH+-5%
L 234	0770016	COIL 27UH+-5%
L 235	0770027	COIL 180UH+-5%
L 401	5152815	CHOKE COIL 22MH+-5%
L 402	5159111	CHOKE COIL 5600UH
L 403	5159207	CHOKE COIL 100UH
L 404	5159216	COIL, CHOKE 470UH
L 581	5121383	COIL CHOKE 47UH
L 584	5121382	COIL 100UH
L 585	5121383	COIL CHOKE 47UH
L 586	5121382	COIL 100UH
L 587	5121381	COIL 47UH
L 588	5121383	COIL CHOKE 47UH
L 589	5121381	COIL 47UH
L 901	5159201	CHOKE COIL 33UH
L 902	5159201	CHOKE COIL 33UH
CP 201	5163953	FILTER, LOW PASS
CP 203	5165095	COIL, TRAP
CP 204	5163914	FILTER, LOW PASS
CP 206	5163632	FILTER, BAND PASS
CP 207	5786181	FILTER
CP 208	5162754	HIGHT PASS FILTER
CX 901	5778072	CRYSTAL
CX 902	5778231	CRYSTAL
JK 402	5694811	MINI JACK
JK 403	5671882	MINI JACK
JK 901	5693501	JACK, DC
LED 901	5381001	LED SLR-34URC5
QF 901	5721942	IC PROTECTER PN20
F 901	5721952	FUSE
F 902	5721952	FUSE
S 001	5601821	SWITCH
S 002	5635331	SWITCH
S 901	5635115	SWITCH
S 902	5634884	SWITCH
S 903	5621731	SWITCH
S 904	5634884	SWITCH
S 905	5634884	SWITCH
S 906	5634884	SWITCH
S 907	5634884	SWITCH
S 908	5634884	SWITCH
S 910	5634884	SWITCH
S 911	5634884	SWITCH
S 912	5634884	SWITCH
S 913	5634884	SWITCH

CAMERA SECTION

C 101	0209894	CERAMIC CHIP 27PF+-10% 50V(For U)
C 101	0202127	CERAMIC CHIP 0.01UF+80-20% 50V(For C)
C 102	0202043	CERAMIC DISC 15PF+-5% 50V

SYMBOL-NO	P-NO	DISCRIPTION
C 103	0202043	CERAMIC DISC 15PF+-5% 50V(For U)
C 103	0202109	CERAMIC CHIP 1000PF+-10% 50V(For C)
C 104	0209851	CERAMIC DISC 15PF+-5% 50V(For U)
C 104	0202052	CERAMIC CHIP 68PF+-5% 50V(For C)
C 105	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 107	0209851	CERAMIC DISC 15PF+-5% 50V(For U)
C 107	0202044	CERAMIC CHIP 18PF+-5% 50V(For C)
C 108	0209851	CERAMIC DISC 15PF+-5% 50V(For U)
C 108	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 109	0209858	CERAMIC CHIP 0.0015UF+-20% 50V
C 110	0209858	CERAMIC CHIP 0.0015UF+-20% 50V
C 111	0202054	CERAMIC CHIP 100PF+-5% 50V
C 112	0256161	ELECTROLYTIC 22UF 6.3V(For U)
C 112	0202085	CERAMIC CHIP 15PF+-5% 50V(For C)
C 113	0256690	ELECTROLYTIC 10UF 16V
C 114	0202049	CERAMIC DISC 47PF+-5% 50V
C 115	0209837	CERAMIC DISC 1000PF+80-20%
C 116	0209846	CERAMIC CHIP 33PF+-10% 50V
C 117	0209846	CERAMIC CHIP 33PF+-10% 50V
C 118	0209897	CERAMIC CHIP 56PF+-5% 50V
C 119	0209897	CERAMIC CHIP 56PF+-5% 50V
C 120	0209897	CERAMIC CHIP 56PF+-5% 50V(For U)
C 120	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 121	0209897	CERAMIC CHIP 56PF+-5% 50V(For U)
C 121	0202127	CERAMIC CHIP 0.01UF+80-20% 50V(For C)
C 122	0209894	CERAMIC CHIP 27PF+-10% 50V
C 123	0209894	CERAMIC CHIP 27PF+-10% 50V
C 124	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 124	0202109	CERAMIC CHIP 1000PF+-10% 50V(For C)
C 125	0209869	CERAMIC DISC 0.047UF+80-20% 25V
C 126	0209831	CERAMIC CHIP 6800PF+-20% 50V(For U)
C 126	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 127	0209869	CERAMIC DISC 0.047UF+80-20% 25V
C 128	0209869	CERAMIC DISC 0.047UF+80-20% 25V
C 130	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 130	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 131	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 132	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 133	0209828	CERAMIC CHIP 0.01UF+80-20% 50V(For U)
C 133	0202127	CERAMIC CHIP 0.01UF+80-20% 50V(For C)
C 134	0209828	CERAMIC CHIP 0.01UF+80-20% 50V(For U)
C 134	0202127	CERAMIC CHIP 0.01UF+80-20% 50V(For C)
C 135	0256685	ELECTROLYTIC 1UF 50V
C 136	0209828	CERAMIC CHIP 0.01UF+80-20% 50V(For U)
C 136	0202127	CERAMIC CHIP 0.01UF+80-20% 50V(For C)
C 137	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 138	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 138	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 139	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 139	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 140	0202146	AHIP CERAMIC 1.0UF+80-20% 16V(For U)
C 140	0202127	CERAMIC CHIP 0.01UF+80-20% 50V(For C)
C 141	0256689	ELECTROLYTIC 10UF 6.3V
C 142	0202127	CERAMIC CHIP 0.01UF+80-20% 50V(For U)
C 142	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 143	0202054	CERAMIC CHIP 100PF+-5% 50V(For U)
C 143	0202044	CERAMIC CHIP 18PF+-5% 50V(For C)
C 144	0256689	ELECTROLYTIC 10UF 6.3V(For U)
C 144	0202046	CERAMIC CHIP 27PF+-5% 50V(For C)
C 145	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 145	0202054	CERAMIC CHIP 100PF+-5% 50V(For C)
C 146	0256689	ELECTROLYTIC 10UF 6.3V(For U)
C 146	0256856	ELECTROLYTIC 330UF 6.3V(For C)
C 147	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 147	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)

SYMBOL-NO	P-NO	DISCRIPTION
C 148	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For U)
C 148	0202048	CERAMIC CHIP 39PF+-5% 50V(For C)
C 149	0209895	CERAMIC CHIP 39PF+-5% 50V(For U)
C 149	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 150	0202092	CERAMIC CHIP 47PF+-5% 50V(For C)
C 151	0202146	AHIP CERAMIC 1.0UF+80-20% 16V(For U)
C 151	0202092	CERAMIC CHIP 47PF+-5% 50V(For C)
C 152	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 153	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 153	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 154	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 154	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 155	0202098	CERAMIC CHIP 0.1UF+80-20% 16V
C 156	0202044	CERAMIC CHIP 18PF+-5% 50V(For C)
C 157	0256161	ELECTROLYTIC 22UF 6.3V(For U)
C 157	0202044	CERAMIC CHIP 18PF+-5% 50V(For C)
C 158	0256161	ELECTROLYTIC 22UF 6.3V
C 159	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 159	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 160	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 161	0256161	ELECTROLYTIC 22UF 6.3V(For U)
C 161	0202054	CERAMIC CHIP 100PF+-5% 50V(For C)
C 162	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 163	0256843	ELECTROLYTIC 47UF 10V
C 165	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 165	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 165	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 165	0202098	CERAMIC CHIP 0.1UF+80-20% 16V(For C)
C 170	0256856	ELECTROLYTIC 330UF 6.3V
C 171	0256689	ELECTROLYTIC 10UF 6.3V
C 172	0209969	CERAMIC CHIP 0.1UF+80-20% 25V
C 174	0202054	CERAMIC CHIP 100PF+-5% 50V
C 175	0256685	ELECTROLYTIC 1UF 50V
C 176	0202054	CERAMIC CHIP 100PF+-5% 50V
C 177	0202044	CHIP CERAMIC 18PF+-5% 50V
C 178	0202105	CERAMIC CHIP 470PF+-10% 50V
C 180	0202012	CERAMIC CHIP 22PF+-5% 50V(For C)
C 201	0256161	ELECTROLYTIC 22UF 6.3V
C 202	0255135	ELECTROLYTIC 100UF 6.3V(For C)
C 203	0256160	ELECTROLYTIC 47UF 6.3V
C 204	0256156	ELECTROLYTIC 22UF 16V
C 205	0256708	ELECTROLYTIC 47UF 10V
C 206	0256160	ELECTROLYTIC 47UF 6.3V
C 207	0256156	ELECTROLYTIC 22UF 16V
C 208	0256161	ELECTROLYTIC 22UF 6.3V
C 209	0256754	ELECTROLYTIC 220UF 10V
C 210	0255136	ELECTROLYTIC 220UF 6.3V(For C)
C 211	0209828	CERAMIC CHIP 0.01UF+80-20% 50V(For U)
C 211	0201006	CERAMIC CHIP 0.01UF+80-20% 50V(For C)
C 212	0209828	CERAMIC CHIP 0.01UF+80-20% 50V(For U)
C 212	0201006	CERAMIC CHIP 0.01F+80-20% 50V(For C)
C 213	0256784	ELECTROLYTIC 330UF 16V
C 215	0256151	ELECTROLYTIC 1UF 50V
C 216	0256784	ELECTROLYTIC 330UF 16V
C 217	0202098	CERAMIC CHIP 0.1UF+80-20% 16V
C 227	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 227	0201069	CERAMIC CHIP 0.1UF+80-20% 25V(For C)
C 228	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 228	0201069	CERAMIC DISC 0.1UF+80-20% 25V(For C)
C 229	0209969	CERAMIC CHIP 0.1UF+80-20% 25V(For U)
C 229	0201069	CERAMIC DISC 0.1UF+80-20% 25V(For C)
C 230	0256687	ELECTROLYTIC 3.3UF 25V
C 231	0256151	ELECTROLYTIC 1UF 50V
C 239	0202048	CERAMIC DISC 39PF+-5% 50V
CT 101	5058562	TRIMMER 20PF
R 101	0104065	CHIP RESISTOR 150KOHM+-5% 1/16W(For C)
R 102	0104033	CHIP RESISTOR 470 OHM+-5% 1/16W(For U)

SYMBOL-NO	P-NO	DISCRIPTION
R 102	0104063	CHIP RESISTOR 100KOHM+-5% 1/16W(For C)
R 103	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W(For U)
R 103	0104051	CHIP RESISTOR 10KOHM+-5% 1/16W(For C)
R 104	0103839	CHIP RESISTOR 470 OHM+-5% 0.1W(For U)
R 104	0104076	CHIP RESISTOR 1000KOHM+-5% 1/16W(For C)
R 105	0103837	CHIP RESISTOR 330 OHM+-5% 0.1W(For U)
R 105	0104024	CHIP RESISTOR 100 OHM+-5% 1/16W(For C)
R 106	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 107	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 108	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 109	0104024	CHIP RESISTOR 100 OHM+-5% 1/16W(For C)
R 110	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W(For U)
R 110	0104042	CHIP RESISTOR 2.2KOHM+-5% 1/16W(For C)
R 111	0104056	CHIP RESISTOR 27KOHM+-5% 1/16W(For U)
R 111	0104047	CHIP RESISTOR 5.6KOHM+-5% 1/16W(For C)
R 112	0103857	CHIP RESISTOR 15KOHM+-5% 0.1W(For U)
R 112	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 113	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W
R 115	0103867	CHIP RESISTOR 100KOHM+-5% 0.1W(For U)
R 115	0104063	CHIP RESISTOR 100KOHM+-5% 1/16W(For C)
R 116	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W(For U)
R 116	0104011	CHIP RESISTOR 10 OHM+-5% 1/16W(For C)
R 117	0103844	CHIP RESISTOR 1.2KOHM+-5% 0.1W(For U)
R 117	0104058	CHIP RESISTOR 47KOHM+-5% 1/16W(For C)
R 118	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W(For U)
R 118	0104057	CHIP RESISTOR 39KOHM+-5% 1/16W(For C)
R 119	0103839	CHIP RESISTOR 470 OHM+-5% 0.1W(For U)
R 119	0104052	CHIP RESISTOR 12KOHM+-5% 1/16W(For C)
R 120	0103839	CHIP RESISTOR 470 OHM+-5% 0.1W(For U)
R 120	0104061	CHIP RESISTOR 68KOHM+-5% 1/16W(For C)
R 121	0104056	CHIP RESISTOR 27KOHM+-5% 1/16W(For C)
R 122	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W(For U)
R 122	0104051	CHIP RESISTOR 10KOHM+-5% 1/16W(For C)
R 123	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W(For U)
R 123	0104053	CHIP RESISTOR 15KOHM+-5% 1/16W(For C)
R 124	0103839	CHIP RESISTOR 470 OHM+-5% 0.1W(For U)
R 124	0104053	CHIP RESISTOR 15KOHM+-5% 1/16W(For C)
R 125	0103839	CHIP RESISTOR 470 OHM+-5% 0.1W(For U)
R 125	0104052	CHIP RESISTOR 12KOHM+-5% 1/16W(For C)
R 126	0103860	CHIP RESISTOR 27KOHM+-5% 0.1W
R 127	0103867	CHIP RESISTOR 100KOHM+-5% 0.1W(For U)
R 127	0104051	CHIP RESISTOR 10KOHM+-5% 1/16W(For C)
R 128	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W(For U)
R 128	0104052	CHIP RESISTOR 12KOHM+-5% 1/16W(For C)
R 129	0103815	CHIP RESISTOR 4.7OHM+-10% 0.1W(For U)
R 129	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 130	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W(For U)
R 130	0104046	CHIP RESISTOR 4.7KOHM+-5% 1/16W(For C)
R 131	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W(For U)
R 131	0104053	CHIP RESISTOR 15KOHM+-5% 1/16W(For C)
R 132	0104055	CHIP RESISTOR 22KOHM+-5% 1/16W(For C)
R 133	0104048	CHIP RESISTOR 6.8KOHM+-5% 1/16W(For C)
R 134	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W(For U)
R 134	0104039	CHIP RESISTOR 1.5KOHM+-5% 1/16W(For C)
R 135	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W(For U)
R 135	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 136	0103853	CHIP RESISTOR 6.8KOHM+-5% 0.1W(For U)
R 136	0104042	CHIP RESISTOR 2.2KOHM+-5% 1/16W(For C)
R 137	0103845	CHIP RESISTOR 1.5KOHM+-5% 0.1W(For U)
R 137	0104031	CHIP RESISTOR 330 OHM+-5% 1/16W(For C)
R 138	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W(For U)
R 138	0104041	CHIP RESISTOR 1.8KOHM+-5% 1/16W(For C)
R 139	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W(For U)
R 139	0104051	CHIP RESISTOR 10KOHM+-5% 1/16W(For C)
R 140	0103837	CHIP RESISTOR 330 OHM+-5% 0.1W(For U)

SYMBOL-NO	P-NO	DISCRIPTION
R 140	0104046	CHIP RESISTOR 4.7OHM+-5% 1/16W(For C)
R 141	0103844	CHIP RESISTOR 1.2KOHM+-5% 0.1W(For U)
R 141	0104041	CHIP RESISTOR 1.8KOHM+-5% 1/16W(For C)
R 142	0104041	CHIP RESISTOR 1.8KOHM+-5% 1/16W(For U)
R 142	0104052	CHIP RESISTOR 12KOHM+-5% 1/16W(For C)
R 143	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For U)
R 143	0104034	CHIP RESISTOR 560 OHM+-5% 1/16W(For C)
R 144	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W(For U)
R 144	0104035	CHIP RESISTOR 680 OHM+-5% 1/16W(For C)
R 145	0104024	CHIP RESISTOR 100 OHM+-5% 1/16W(For U)
R 145	0104047	CHIP RESISTOR 5.6KOHM+-5% 1/16W(For C)
R 146	0104038	CHIP RESISTOR 1.2KOHM+-5% 1/16W(For C)
R 147	0104042	CHIP RESISTOR 2.2KOHM+-5% 1/16W(For U)
R 147	0104038	CHIP RESISTOR 1.2KOHM+-5% 1/16W(For C)
R 148	0103857	CHIP RESISTOR 15KOHM+-5% 0.1W(For U)
R 148	0104051	CHIP RESISTOR 10KOHM+-5% 1/16W(For C)
R 149	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W(For U)
R 149	0104042	CHIP RESISTOR 2.2KOHM+-5% 1/16W(For C)
R 150	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W(For U)
R 150	0104024	CHIP RESISTOR 100 OHM+-5% 1/16W(For C)
R 151	0103856	CHIP RESISTOR 12KOHM+-5% 0.1W(For U)
R 151	0104045	CHIP RESISTOR 3.9KOHM+-5% 1/16W(For C)
R 152	0104028	CHIP RESISTOR 220 OHM+-5% 1/16W(For U)
R 152	0104059	CHIP RESISTOR 56KOHM+-5% 1/16W(For C)
R 153	0104041	CHIP RESISTOR 1.8KOHM+-5% 1/16W(For U)
R 153	0104061	CHIP RESISTOR 68KOHM+-5% 1/16W(For C)
R 154	0104042	CHIP RESISTOR 2.2KOHM+-5% 1/16W(For U)
R 154	0104053	CHIP RESISTOR 15KOHM+-5% 1/16W(For C)
R 155	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W(For U)
R 155	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W(For C)
R 156	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W(For U)
R 156	0104055	CHIP RESISTOR 22KOHM+-5% 1/16W(For C)
R 157	0104043	CHIP RESISTOR 2.7KOHM+-5% 1/16W(For U)
R 157	0104052	CHIP RESISTOR 12KOHM+-5% 1/16W(For C)
R 158	0104043	CHIP RESISTOR 2.7KOHM+-5% 1/16W(For U)
R 158	0104039	CHIP RESISTOR 1.5KOHM+-5% 1/16W(For C)
R 159	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W(For U)
R 159	0104034	CHIP RESISTOR 560 OHM+-5% 1/16W(For C)
R 160	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W(For U)
R 160	0104034	CHIP RESISTOR 560 OHM+-5% 1/16W(For C)
R 161	0104048	CHIP RESISTOR 6.8KOHM+-5% 1/16W(For U)
R 161	0104035	CHIP RESISTOR 680 OHM+-5% 1/16W(For C)
R 162	0104046	CHIP RESISTOR 4.7KOHM+-5% 1/16W(For U)
R 162	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 163	0104032	CHIP RESISTOR 390 OHM+-5% 1/16W(For C)
R 164	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 165	0104041	CHIP RESISTOR 1.8KOHM+-5% 1/16W(For C)
R 166	0104042	CHIP RESISTOR 2.2KOHM+-5% 1/16W(For C)
R 167	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 168	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W(For C)
R 169	0104053	CHIP RESISTOR 15KOHM+-5% 1/16W(For C)
R 170	0104047	CHIP RESISTOR 5.6KOHM+-5% 1/16W(For U)
R 170	0104053	CHIP RESISTOR 15KOHM+-5% 1/16W(For C)
R 171	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W(For U)
R 171	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W(For C)
R 172	0104034	CHIP RESISTOR 560 OHM+-5% 1/16W(For U)
R 172	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W(For C)
R 173	0104046	CHIP RESISTOR 4.7KOHM+-5% 1/16W(For C)
R 174	0104059	CHIP RESISTOR 56KOHM+-5% 1/16W
R 175	0103865	CHIP RESISTOR 68KOHM+-5% 0.1W(For U)
R 175	0104048	CHIP RESISTOR 6.8KOHM+-5% 1/16W(For C)
R 176	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 177	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W(For C)
R 179	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 180	0103861	CHIP RESISTOR 33KOHM+-5% 0.1W

SYMBOL-NO	P-NO	DISCRIPTION
R 181	0104032	CHIP RESISTOR 390 OHM+-5% 1/16W
R 185	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W
R 186	0103856	CHIP RESISTOR 12KOHM+-5% 0.1W
R 187	0104051	CHIP RESISTOR 10KOHM+-5% 1/16W
R 188	0104046	CHIP RESISTOR 4.7KOHM+-5% 1/16W
R 192	0103835	CHIP RESISTOR 220 OHM+-5% 0.1W
R 193	0103844	CHIP RESISTOR 1.2KOHM+-5% 0.1W
R 195	0104017	CHIP RESISTOR 33 OHM+-5% 1/16W
R 201	0103848	CHIP RESISTOR 2.7KOHM+-5% 0.1W(For U)
R 201	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W(For C)
R 203	0104048	CHIP RESISTOR 6.8KOHM+-5% 1/16W
R 204	0104048	CHIP RESISTOR 6.8KOHM+-5% 1/16W
R 205	0104048	CHIP RESISTOR 6.8KOHM+-5% 1/16W
R 206	0104048	CHIP RESISTOR 6.8KOHM+-5% 1/16W
R 207	0104051	CHIP RESISTOR 10KOHM+-5% 1/16W
R 208	0104046	CHIP RESISTOR 4.7KOHM+-5% 1/16W
R 209	0104055	CHIP RESISTOR 22KOHM+-5% 1/16W
R 210	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 211	0104041	CHIP RESISTOR 1.8KOHM+-5% 1/16W
R 212	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W(For C)
R 212	0104045	CHIP RESISTOR 3.9KOHM+-5% 1/16W(For C)
R 214	0103852	CHIP RESISTOR 5.6KOHM+-5% 0.1W
R 215	0103828	CHIP RESISTOR 56 OHM+-5% 0.1W
R 217	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 219	0103852	CHIP RESISTOR 5.6KOHM+-5% 0.1W
R 221	0103828	CHIP RESISTOR 56 OHM+-5% 0.1W
R 222	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W
R 224	0104047	CHIP RESISTOR 5.6KOHM+-5% 1/16W
R 226	0104021	CHIP RESISTOR 56 OHM+-5% 1/16W
R 227	0103852	CHIP RESISTOR 5.6KOHM+-5% 0.1W
R 228	0104058	CHIP RESISTOR 47KOHM+-5% 1/16W
R 229	0104083	CHIP RESISTOR 33KOHM+-5% 1/16W
R 230	0103851	CHIP RESISTOR 4.7KOHM+-5% 0.1W
R 231	0103857	CHIP RESISTOR 15KOHM+-5% 0.1W
R 232	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 233	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 234	0104046	CHIP RESISTOR 4.7KOHM+-5% 1/16W
R 235	0104037	CHIP RESISTOR 1KOHM+-5% 1/16W
R 236	0103869	CHIP RESISTOR 150KOHM+-5% 0.1W
R 237	0104052	CHIP RESISTOR 12KOHM+-5% 1/16W(For U)
R 237	0104051	CHIP RESISTOR 10KOHM+-5% 1/16W(For C)
R 238	0104039	CHIP RESISTOR 1.5KOHM+-5% 1/16W
R 239	0103853	CHIP RESISTOR 6.8KOHM+-5% 0.1W
R 243	0103848	CHIP RESISTOR 2.7KOHM+-5% 0.1W(For C)
R 244	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 245	0104045	CHIP RESISTOR 3.9KOHM+-5% 1/16W(For U)
R 245	0104046	CHIP RESISTOR 4.7KOHM+-5% 1/16W(For C)
R 246	0104039	CHIP RESISTOR 1.5KOHM+-5% 1/16W
R 248	0103853	CHIP RESISTOR 6.8KOHM+-5% 0.1W
R 249	0104044	CHIP RESISTOR 3.3KOHM+-5% 1/16W
R 250	0103848	CHIP RESISTOR 2.7KOHM+-5% 0.1W
R 251	0103853	CHIP RESISTOR 6.8KOHM+-5% 0.1W(For C)
R 252	0104059	CHIP RESISTOR 56KOHM+-5% 1/16W
R 254	0103868	CHIP RESISTOR 120KOHM+-5% 0.1W
R 255	0103877	CHIP RESISTOR 680KOHM+-5% 0.1W
R 260	0104056	CHIP RESISTOR 27KOHM+-5% 1/16W
R 262	0104072	CHIP RESISTOR 470KOHM+-5% 1/16W(For U)
R 262	0104075	CHIP RESISTOR 820KOHM+-5% 1/16W(For C)
R 263	0104067	CHIP RESISTOR 220KOHM+-5% 1/16W(For U)
R 263	0104069	CHIP RESISTOR 330KOHM+-5% 1/16W(For C)
R 264	0104073	CHIP RESISTOR 560KOHM+-5% 1/16W(For U)
R 264	0104069	CHIP RESISTOR 330KOHM+-5% 1/16W(For C)
R 265	0104021	CHIP RESISTOR 56 OHM+-5% 1/16W
R 266	0103860	CHIP RESISTOR 27KOHM+-5% 0.1W
R 267	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W

SYMBOL-NO	P-NO	DISCRIPTION
R 268	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 269	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W
R 281	0104055	CHIP RESISTOR 22KOHM+-5% 1/16W(For C)
R 282	0104055	CHIP RESISTOR 22KOHM+-5% 1/16W(For C)
R 401	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 402	0103842	CHIP RESISTOR 820 OHM+-5% 0.1W
R 403	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 404	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 405	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W
R 406	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 407	0103835	CHIP RESISTOR 220 OHM+-5% 0.1W
R 408	0103845	CHIP RESISTOR 1.5KOHM+-5% 0.1W
R 409	0103833	CHIP RESISTOR 150 OHM+-5% 0.1W
R 410	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W
R 411	0103847	CHIP RESISTOR 2.2KOHM+-5% 0.1W
R 412	0103838	CHIP RESISTOR 390 OHM+-5% 0.1W
R 413	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 414	0103850	CHIP RESISTOR 3.9KOHM+-5% 0.1W
R 415	0103840	CHIP RESISTOR 560 OHM+-5% 0.1W
R 416	0103852	CHIP RESISTOR 5.6KOHM+-5% 0.1W
R 417	0103842	CHIP RESISTOR 820 OHM+-5% 0.1W
R 418	0103855	CHIP RESISTOR 10KOHM+-5% 0.1W
R 419	0103858	CHIP RESISTOR 18KOHM+-5% 0.1W
R 420	0103841	CHIP RESISTOR 680 OHM+-5% 0.1W
R 421	0103862	CHIP RESISTOR 39KOHM+-5% 0.1W
R 422	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 425	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
RT 101	5007466	SEMI VARIABLE 220KOHM(For U)
RT 101	5007464	SEMI VARIABLE 47KOHM(For C)
RT 201	5007459	RESISTOR SEMI VARIABLE 2.2KOHM(For U)
RT 201	5007462	SEMI VARIABLE 47KOHM(For C)
RT 202	5007461	RESISTOR SEMI VARIABLE 4.7KOHM(For U)
RT 202	5007462	SEMI VARIABLE 47KOHM(For C)
RT 203	5007459	RESISTOR SEMI VARIABLE 2.2KOHM(For U)
RT 203	5007458	SEMI VARIABLE 1KOHM(For C)
RT 204	5040048	SEMI VARIABLE 22KOHM(For C)
RV 401	5002011	VARIABLE 10KOHM
D 101	5328321	DIODE MA151K (MH)(For U)
D 101	5337031	DIODE 1SV201(For C)
D 102	5328301	DIODE MA151WK (MT)
D 103	5326021	DIODE MA160-MID
D 104	5328321	DIODE MA151K (MH)
D 105	5328321	DIODE MA151K (MH)
D 106	5328321	DIODE MA151K (MH)
D 201	5328321	DIODE MA151K (MH)
D 401	5381941	DIODE GL1PR11
IC 101	5318301	IC MN3739FC
IC 102	1351801	IC MN5128(For U)
IC 102	1352161	IC HD62996(For C)
IC 103	1350711	IC MN3107CS(For U)
IC 103	1351531	IC CDX1250M(For C)
IC 104	5305131	IC TC4SU69F(For U)
IC 104	1354431	IC BU74HC 00F(For C)
IC 105	1351581	IC HA118120
IC 106	1350601	IC MN3817S
IC 107	13551581	IC HA118120(For C)
IC 108	5305832	IC MC7S08(For C)
IC 109	5305832	IC MC7S08(For C)
IC 201	1372651	RESISTOR BLOCK R1915(For U)
IC 201	1372871	RESISTOR BLOCK R1916(For C)
IC 202	1372675	IC HT5825D
IC 203	1378935	PWB ASSY HTS5776D(For U)
IC 203	1379463	PWB ASSY HTS5876B(For C)
IC 204	5304141	IC HA118003MP
IC 205	1350261	IC NJM2225M

SYMBOL-NO	P-NO	DISCRIPTION
IC 206	5305131	IC TC4SU69F
IC 207	1354202	IC SC7S02F
Q 102	5326461	TRANSISTOR XN4501
Q 103	5328341	TRANSISTOR 2SD601Y (RS)
Q 104	5326991	TRANSISTOR 2SA1738 (Q/R)
Q 105	1323001	TRANSISTOR 2SC3757 (Q/R)(For U)
Q 105	5328192	TRANSISTOR 2SC2462-LD(For C)
Q 106	5326991	TRANSISTOR 2SA1738 (Q/R)(For U)
Q 106	5326702	TRANSISTOR IMZ2(For C)
Q 107	1323001	TRANSISTOR 2SC3757 (Q/R)
Q 108	5326991	TRANSISTOR 2SA1738 (Q/R)(For U)
Q 108	5326702	TRANSISTOR IMZ2(For C)
Q 109	1323001	TRANSISTOR 2SC3757 (Q/R)
Q 110	5328251	TRANSISTOR 2SA1122-CD(For U)
Q 110	5328192	TRANSISTOR 2SC2462-LD(For C)
Q 111	5328251	TRANSISTOR 2SA1122-CD(For U)
Q 111	5328192	TRANSISTOR 2SC2462-LD(For C)
Q 112	5328192	TRANSISTOR 2SC2462LD(For U)
Q 112	5326491	TRANSISTOR IMX1(For C)
Q 113	5328192	TRANSISTOR 2SC2462LD
Q 114	5326461	TRANSISTOR XN4501(For U)
Q 114	5326701	TRANSISTOR IMT1(For C)
Q 115	5328251	TRANSISTOR 2SA1122-CD
Q 116	5328192	TRANSISTOR 2SC2462LD
Q 117	5328192	TRANSISTOR 2SC2462LD(For U)
Q 117	5326491	TRANSISTOR IMX1(For C)
Q 119	5328251	TRANSISTOR 2SC2462-LD(For C)
Q 120	5326491	TRANSISTOR IMX1(For C)
Q 201	5326701	TRANSISTOR IMT1
Q 202	5326701	TRANSISTOR IMT1
Q 203	5326703	TRANSISTOR IMZ1
Q 204	5328335	TRANSISTOR 2SB709A-RS-T
Q 205	5328335	TRANSISTOR 2SB709A-RS-T
Q 206	5328335	TRANSISTOR 2SB709A-RS-T
Q 207	5328795	TRANSISTOR DTA144EK-16
L 101	5152596	CHOKE COIL 15UH(For U)
L 101	5152596	COIL 47UH(For C)
L 102	5152607	CHOKE COIL 100UH+-10%(For U)
L 102	0773092	COIL 47UH(For C)
L 103	5152604	CHOKE COIL 56UH+-10%
L 104	5152596	CHOKE COIL 15UH(For U)
L 104	0773092	COIL 47UH(For C)
L 105	0773092	COIL 47UH(For C)
L 201	5152942	CHOKE COIL 220UH+-10%
L 202	5152612	CHOKE COIL 220UH
L 203	5152594	CHOKE COIL 10UH
X 101	5784711	OSCILLATOR
CP 101	5165052	LC FILTER(For U)
CP 101	5172174	LC FILTER(For C)
CP 102	5172491	COIL, TRAP
CP 103	5172043	FILTER, LOW PASS
CP 201	5172491	COIL, TRAP
RM 201	5006414	SEMI VARIABLE BLOCK
SW 401	5634884	SWITCH
SW 402	5634884	SWITCH
SW 403	5634884	SWITCH
SW 404	5634884	SWITCH
SW 405	5634884	SWITCH
SW 406	5634884	SWITCH
SW 407	5634884	SWITCH
SW 408	5634884	SWITCH
SW 409	5635115	SWITCH
SW 410	5634932	SWITCH
SW 411	5634932	SWITCH
SW 412	5634884	SWITCH

SYMBOL-NO	P-NO	DISCRIPTION
SW 413	5634884	SWITCH
SW 414	5634884	SWITCH
SW 415	5621731	SWITCH
SW 416	5621731	SWITCH
ELECTRONIC VIEWFINDER SECTION		
C 803	0256155	ELECTROLYTIC 10UF 16V
C 808	0256752	ELECTROLYTIC 3.3UF 63V
C 809	0201997	CERAMIC DISC 0.1UF+80-20% 50V
C 810	0256155	ELECTROLYTIC 10UF 16V
C 811	0201037	CERAMIC CHIP 330PF+-5% 50V
C 812	0201997	CERAMIC DISC 0.1UF+80-20% 50V
C 814	0201069	CERAMIC CHIP 0.1UF+80-20% 25V
C 817	0201007	CERAMIC CHIP 0.01UF+-20% 50V
C 818	0256685	ELECTROLYTIC 1UF 50V
C 819	0256151	ELECTROLYTIC 1UF 50V
R 801	0103856	CHIP RESISTOR 12KOHM+-5% 0.1W
R 802	0103874	CHIP RESISTOR 390KOHM+-5% 0.1W
R 803	0103875	CHIP RESISTOR 470KOHM+-5% 0.1W
R 804	0103881	CHIP RESISTOR 2.2MOHM+-10% 0.1W
R 805	0103881	CHIP RESISTOR 2.2MOHM+-10% 0.1W
R 806	0103820	CHIP RESISTOR 12OHM+-5% 0.1W
R 807	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 808	0103879	CHIP RESISTOR 1MOHM+-5% 0.1W
R 809	0103865	CHIP RESISTOR 68KOHM+-5% 0.1W
R 810	0103859	CHIP RESISTOR 22KOHM+-5% 0.1W
R 811	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 812	0103857	CHIP RESISTOR 15KOHM+-5% 0.1W
R 813	0103846	CHIP RESISTOR 1.8KOHM+-5% 0.1W
R 814	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 815	0103862	CHIP RESISTOR 39KOHM+-5% 0.1W
R 816	0103814	CHIP RESISTOR 3.9OHM+-5% 0.1W
R 817	0103849	CHIP RESISTOR 3.3KOHM+-5% 0.1W
R 818	0103863	CHIP RESISTOR 47KOHM+-5% 0.1W
R 819	0103848	CHIP RESISTOR 2.7KOHM+-5% 0.1W
R 820	0103867	CHIP RESISTOR 100KOHM+-5% 0.1W
R 821	0103843	CHIP RESISTOR 1KOHM+-5% 0.1W
R 822	0103831	CHIP RESISTOR 100 OHM+-5% 0.1W
R 826	0103876	CHIP RESISTOR 560KOHM+-5% 0.1W
RT 802	5007711	SEMI VARIABLE 470 OHM
RT 803	5007793	SEMI VARIABLE 2.2MOHM
RT 805	5007468	SEMI VARIABLE 1MOHM
D 801	5328321	DIODE MA151K (MH)
D 802	5337321	DIODE MA199
D 803	5380691	LED SLR34UR5
IC 801	1351631	IC HA118121FP
Q 801	1323131	TRANSISTOR 2SD968A (R/S)
Q 802	5328241	TRANSISTOR 2SC2463E(DE)
T 801	5240483	COIL
L 801	5152607	CHOKE COIL 100UH+-10%
L 802	5244011	COIL
CS 801	5886234	SOCKET, CRT

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